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Upper Missouri River Basin

Water Availibility Assessment For Coal Technology Requirements

OPERATION STUDY

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Upper Missouri River Basin

Water Availability Assessment for

Coal Technology Requirements

conducted under

Section 13(a)

of the

Federal Non-Nuclear Energy Research Development Act of 1974

Operation Studies

Prepared by

Hydrology Section

Field Planning Branch

Upper Missouri Regional Office

Bureau of Reclamation

Billings, Montana

November 1978

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Introduction

In conjunction with the Section 13(a) Water Assessment conducted by the Missouri River Basin Commission, a water-supply study of the Yellowstone River Basin was required to estimate future streamflows associated with two emerging energy technology scenarios. Operation studies from the Yellowstone River Basin and Adjacent Coal Area Level B Study year 2000 recommended plan were used to determine baseline conditions against which the streamflow effects of emerging energy technology development could be assessed. Coal gasification plants were deleted from the recommended plan for this purpose. The Yellowstone Level B operations studies revealed water-supply shortages in the Yellowstone River Basin in the year 2000 because the reservoirs proposed in the recommended plan were operated as run-of-the-river reservoirs. These operations studies were modified to reflect reservoir operations necessary to provide for all development stipulated in the Yellowstone recommended plan.

As indicated above, streamflow depletions from two emerging energy development scenarios were considered in the Section 13(a) Water Assessment. These scenarios are the Section 13(a) Baseline and the Department Of Energy Accelerated Synfuel Scenarios. Three water-supply alternatives were considered as sources for the water required for the emerging energy scenarios. An operation study was run for each scenario-alternative possibility in order to assess effects upon streamflow at selected gaging stations. The water-supply alternatives are described briefly below:

Alternative 1 (Nearest Water Source)--This alternative considered using the nearest source of surface water available after the Yellowstone Level B Study recommended plan for the year 2000 had been implemented. If remaining streamflows were inadaequate for emerging energy development requirements, irrigated land would be removed from production to provide

the required water.

Alternative 2 (Hardin Aqueduct)--Considered here was water released from storage in Yellowtail Reservoir on the Bighorn River which would be diverted from the river near Hardin, Montana, and transported by pipeline to several of the plants. Other plants would still rely upon the nearest source of supply under this alternative.

Alternative 3 (Miles City Aqueduct)--Under this alternative, those plants not receiving water from the nearest source of supply would utilize the Miles City Aqueduct. As in alternative 2, water would be released from storage in Yellowtail Reservoir but the diversion point would be on the Yellowstone River near Miles City, Montana.

The following maps (figures 1-6) show the location of plants and pipelines for each emerging energy scenario by alternative.

Methodology

Operation studies have been used in the past by the Bureau of Reclamation as a tool in addressing water-supply problems. For this assessment, the operation studies were conducted using the computer program OP STUDY, the same program as was used for the Yellowstone Level B Study.

In developing the operation study programs, the drainage area of the Yellowstone River Basin and input data were considered as follows.

Drainage Area

The size of the Yellowstone Basin made it necessary to divide the basin and run two separate operation studies. The Bighorn River Basin including the drainage areas of the Wind, Shoshone, and Greybull Rivers was considered in one study while the main stem of the Yellowstone River including the drainages of the Stillwater, Clarks Fork, Tongue, and Powder Rivers was considered in the other. Table 1 lists the stream gaging stations used in the operation studies

FIGURE 1

COAL CONVERSION PLANTS AND AQUEDUCTS - MONTANA AND WYOMING

ALTERNATE 1 - SECTION 13(A) BASELINE LEVEL

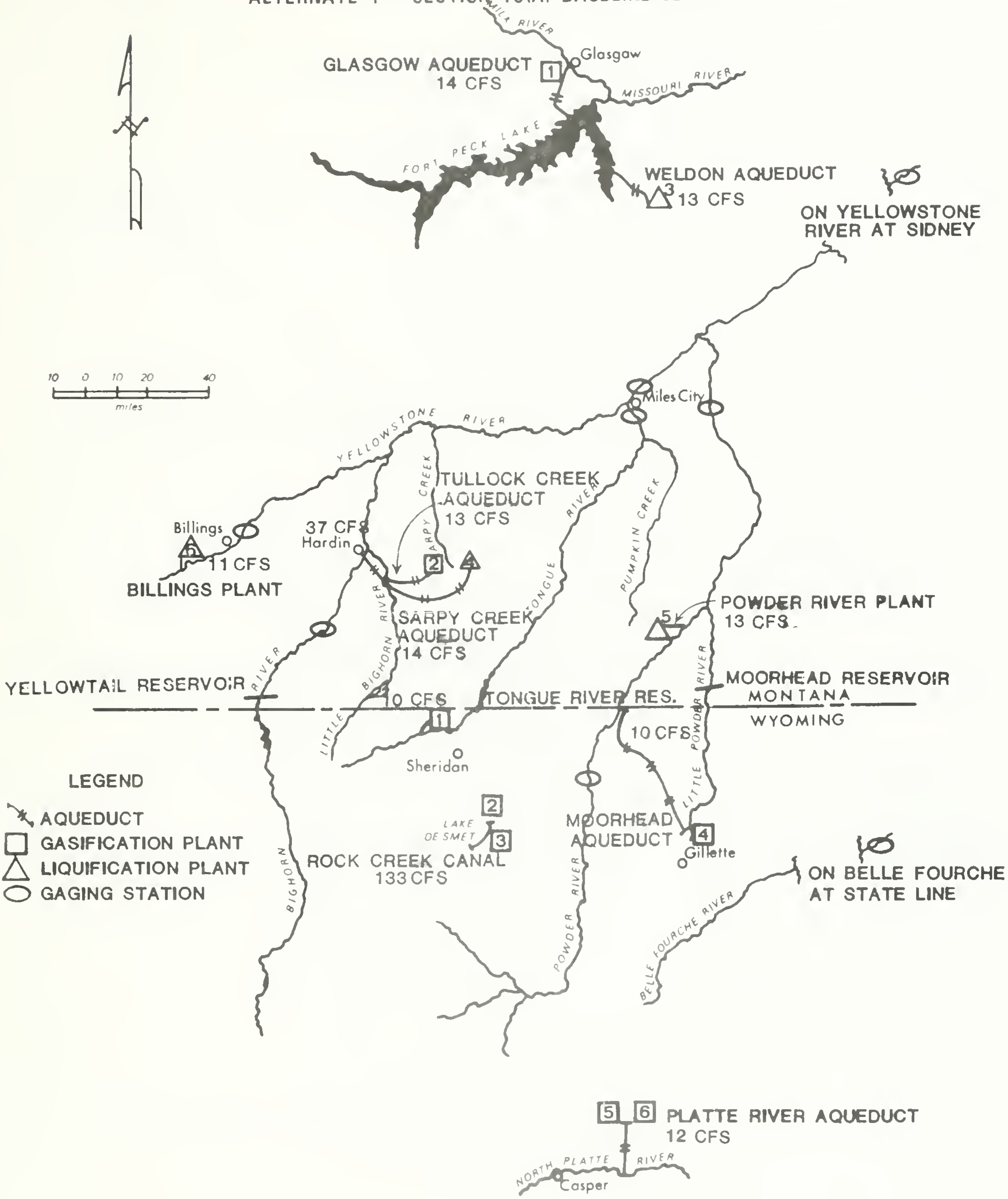


FIGURE 2

COAL CONVERSION PLANTS AND AQUEDUCTS - MONTANA AND WYOMING

ALTERNATE 1 - DEPARTMENT OF ENERGY LEVEL

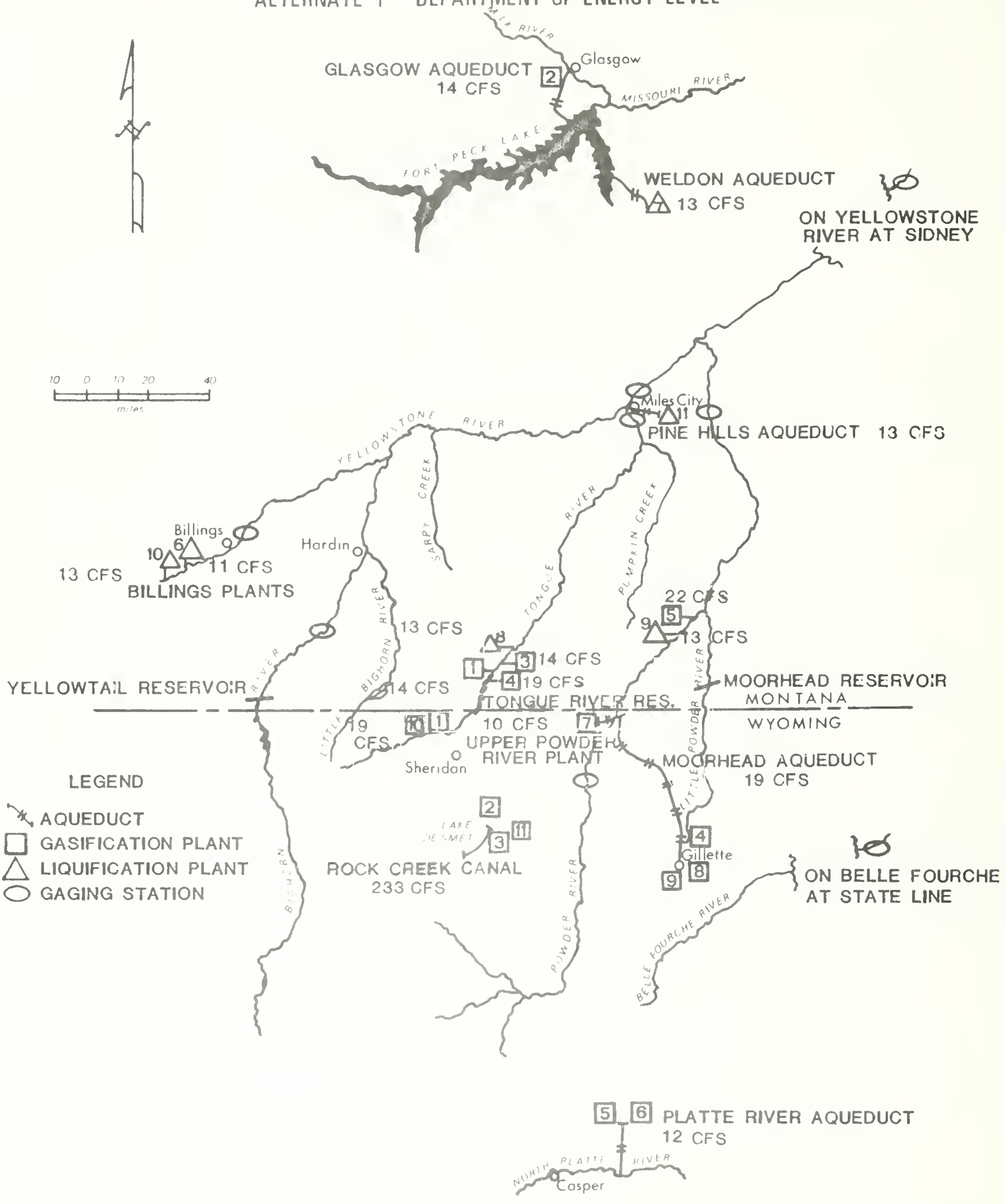


FIGURE 3

COAL C[illegible]ERSION PLANTS AND AQUEDUCTS – MONTANA AND WYOMING
ALTERNATE 2 – SECTION 13(A) BASELINE LEVEL

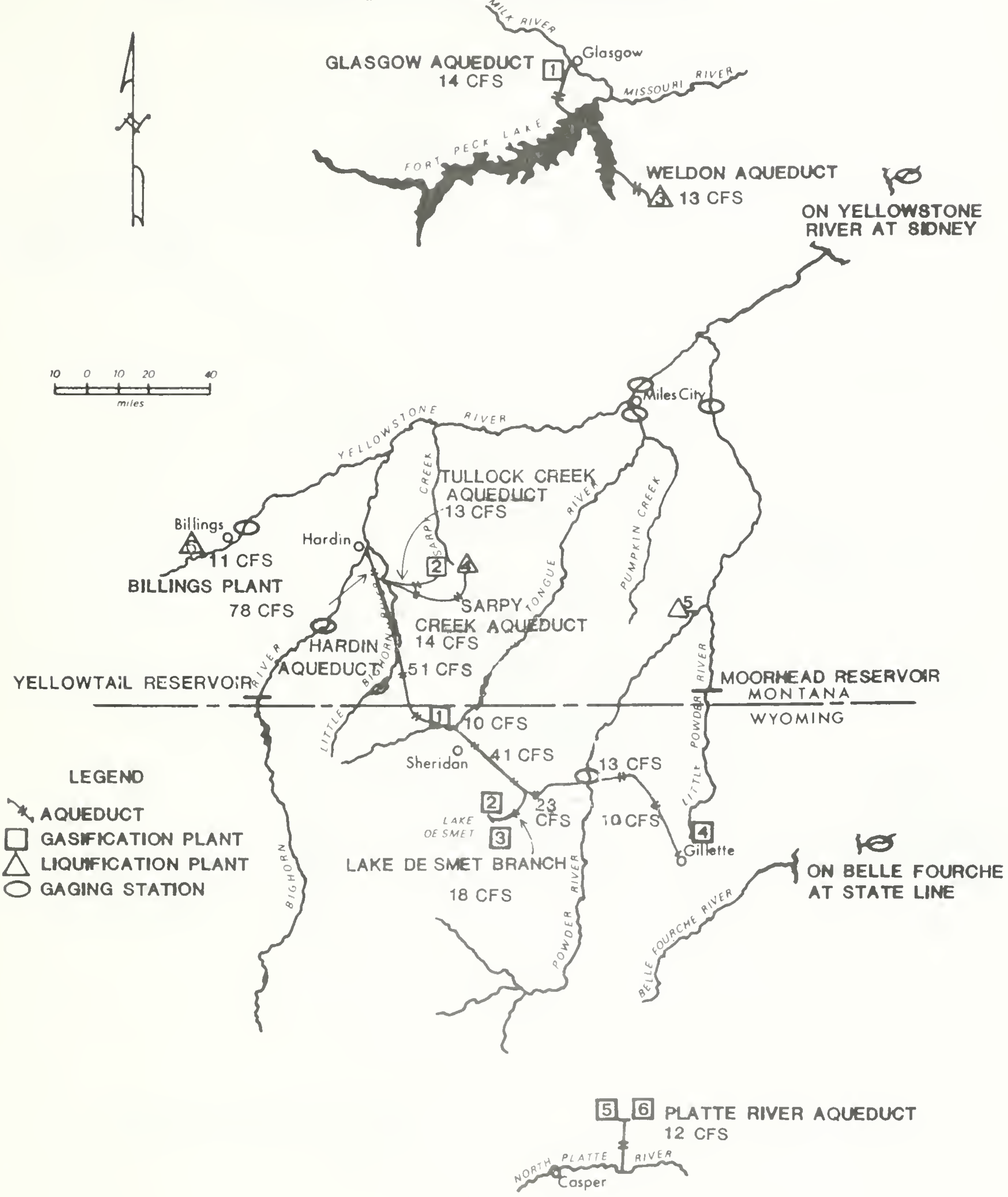


FIGURE 4

COAL CONVERSION PLANTS AND AQUEDUCTS - MONTANA AND WYOMING

ALTERNATE 2 - DEPARTMENT OF ENERGY LEVEL

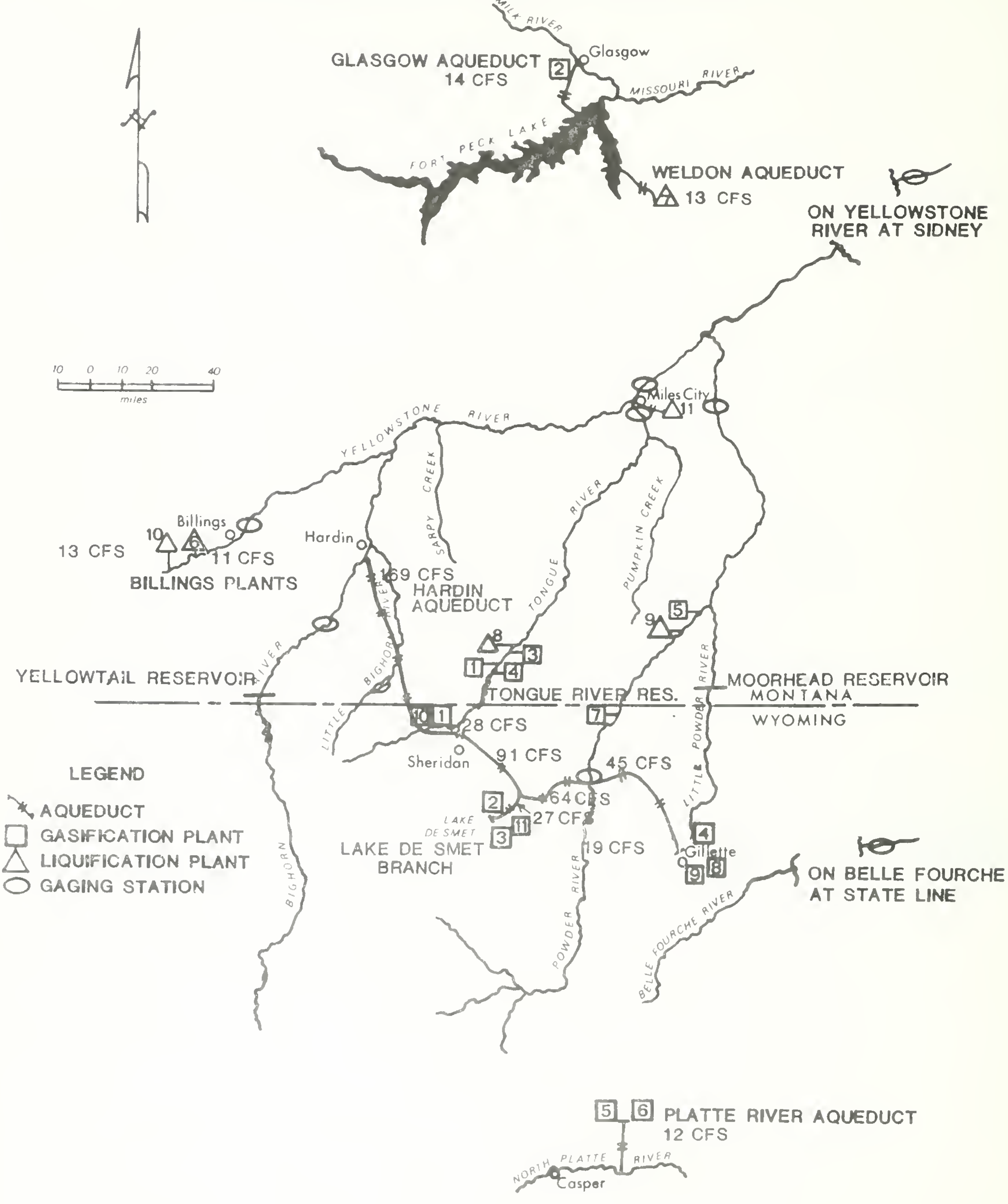


FIGURE 5

COAL CONVERSION PLANTS AND AQUEDUCTS - MONTANA AND WYOMING

ALTERNATE 3 - SECTION 13(A) BASELINE LEVEL

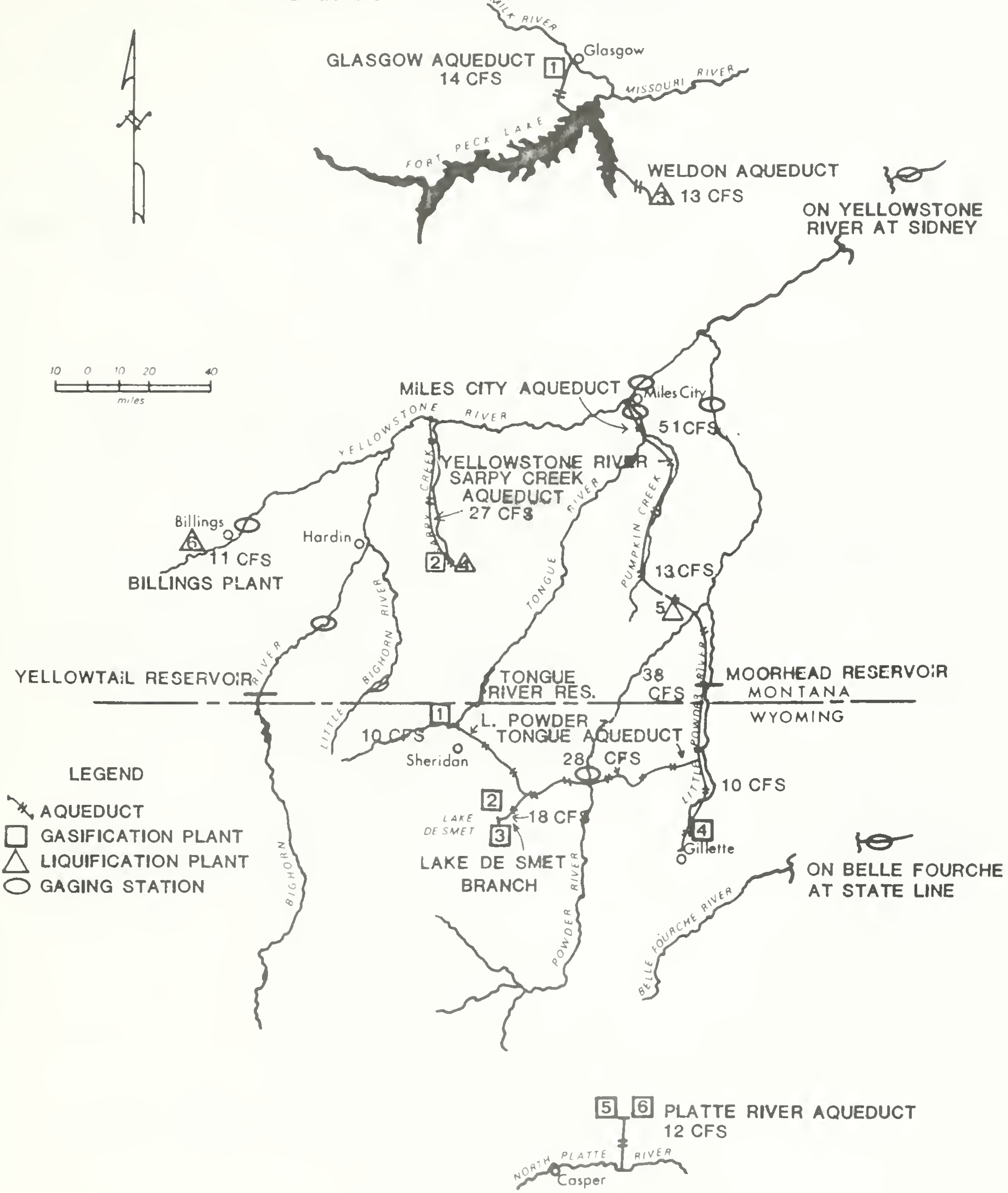
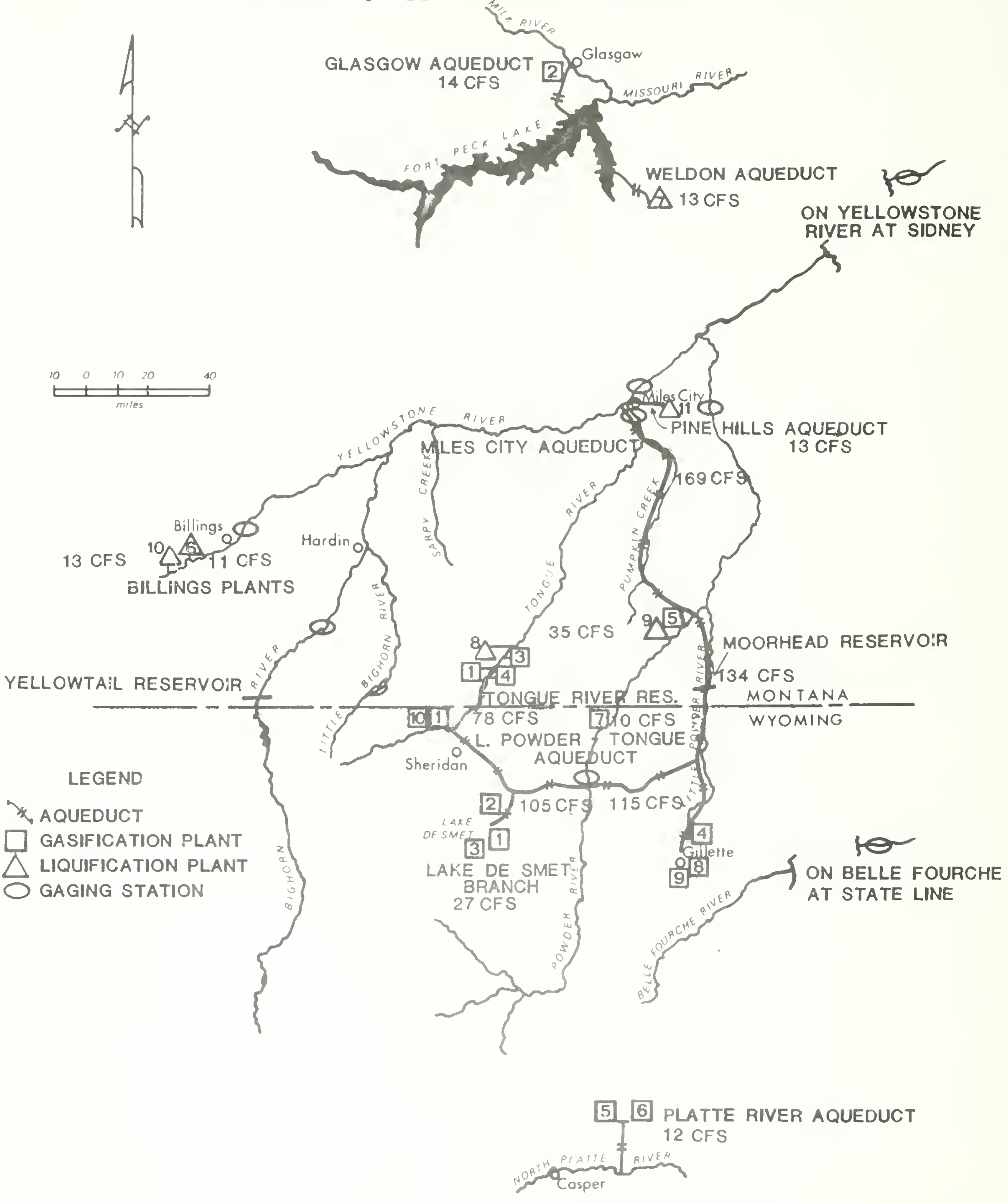


FIGURE 6

COAL CC /ERSION PLANTS AND AQUEDUCTS – MONTANA AND WYOMING
ALTERNATE 3 – DEPARTMENT OF ENERGY LEVEL



while figure 7 indicates their locations.

Data

Three general categories of data were used in the operation studies. These are:

(1) average flows at 1975 level of development;

(2) future depletions; and

(3) reservoir operation data.

Flows associated with the 1975 level of development were presented in the Yellowstone River Basin and Adjacent Coal Fields-Depletion Study, USBR, November 1976. Flow data for the years 1939-1975 were utilized in this assessment, thus, averages shown in the 1976 study are not identical with those used here. The addition to the operation studies of reservoirs proposed in the recommended plan of the Yellowstone Level B Study necessitated inclusion of 1975 level inflows to these reservoirs. Two additional gaging stations were used for this purpose. These stations were located on Clear Creek near Arvada, Wyoming, and the Tongue River near Decker, Montana. As was done with the other stations, 1939-1975 average flows at both stations were adjusted to the 1975 depletion level. The streamflow at Decker was derived from the flow below the Tongue River Dam and the change in contents of the Tongue River Reservoir. Future streamflow depletions resulting from implementation of the Yellowstone recommended plan were projected by the Yellowstone Level B State Study Teams.

Projected streamflow depletions from five consumptive water uses were considered. These were:

(1) irrigation (surface or ground water);

(2) energy production;

(3) municipal;

(4) industrial; and

(5) livestock.

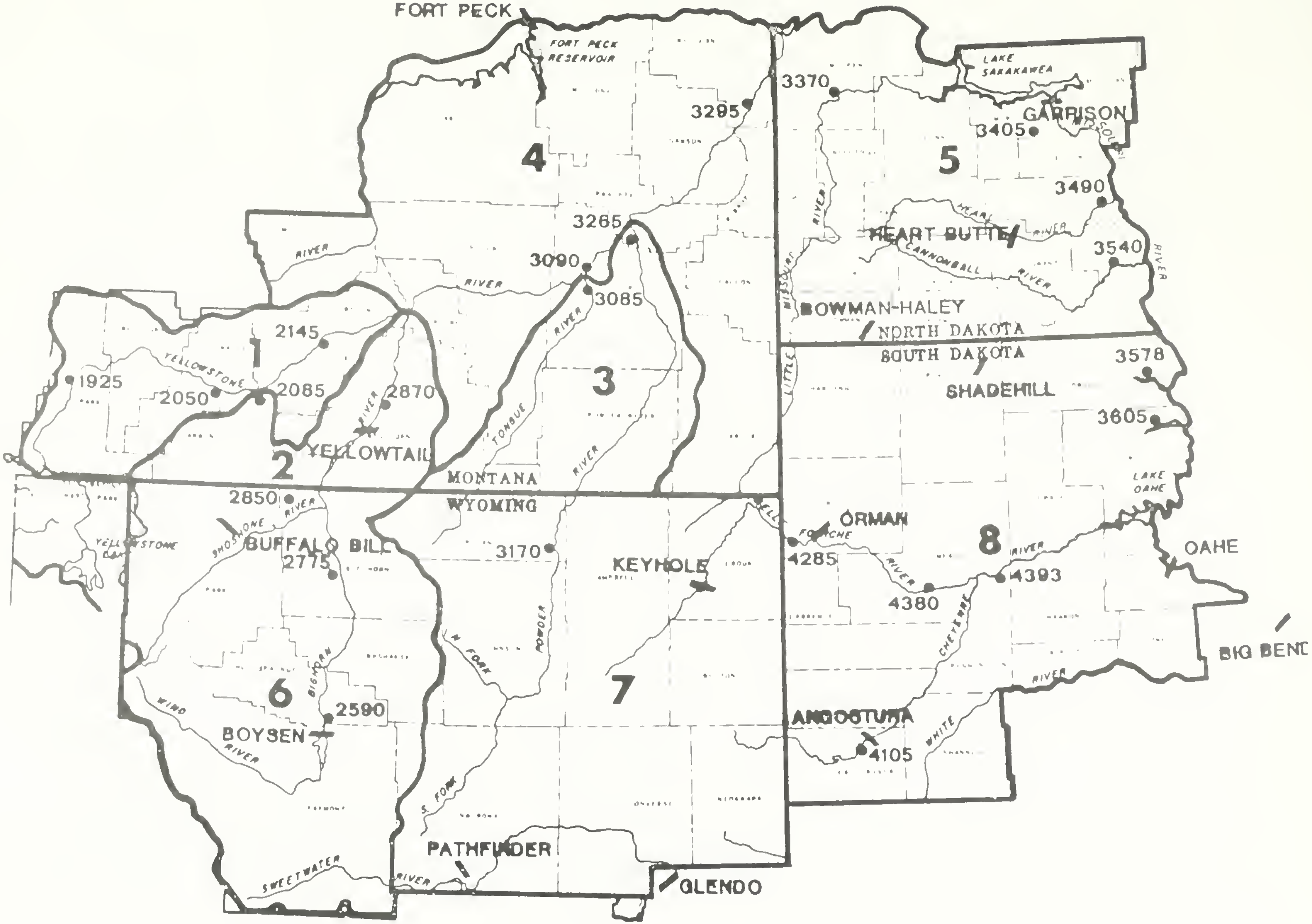
TABLE 1

SELECTED GAGING STATIONS FOR OPERATIONS STUDY

Name	Station Number
Yellowstone River near Livingston*	6-1925
Stillwater River near Absarokee*	6-2050
Clarks Fork of Yellowstone at Edgar*	6-2085
Yellowstone River at Billings*	6-2145
Wind River below Boysen Reservoir	6-2590
Greybull River at Basin	6-2775
Shoshone River at Byron	6-2850
Bighorn River near St. Xavier	6-2870
Tongue River at Miles City*	6-3085
Yellowstone River at Miles City*	6-3090
Powder River at Arvada*	6-3170
Powder River near Locate*	6-3265
Yellowstone River near Sidney*	6-3295

FIGURE 7

GAGING STATIONS AND DAM LOCATIONS



Future streamflow depletion estimates for the Section 13(a) Assessment were provided by the Missouri River Basin Commission. The States of Montana, Wyoming, North Dakota, and South Dakota located these projections by gaging station. Tables 2-6 summarize the selection of candidate areas for energy development as identified by the States. The water consumption from these coal conversion plants, associated mines, and the elements of the Yellowstone recommended plan provide the estimated total depletions for the year 2000 in the Yellowstone River Basin.

The depletion data in the Section 13(a) Assessment are arrayed on an annual basis while the operation study and streamflow data were arrayed by month. This transformation required a procedure to distribute the data on a monthly/annual basis. Criteria for this procedure were developed by the Bureau of Reclamation and are discussed in the criteria section of this report.

The three major reservoirs in the Bighorn River Basin are: (1) Boysen Reservoir; (2) Buffalo Bill Reservoir; and (3) Yellowtail Reservoir. These Bureau of Reclamation Reservoirs were operated using current elevation-area-capacity relationships and the most recent operating criteria as presented in the criteria section of this report. Operation studies of these proposed reservoirs were made by the States and the Bureau of Reclamation in order to establish operating criteria for these reservoirs.

Reservoirs proposed for the Tongue River are: (1) Prairie Dog; (2) South Fork Tongue; and (3) New Tongue. The Prairie Dog and South Fork Tongue Reservoirs were combined and operated to regulate the Tongue River flow at Decker, Montana.

The four Powder River Reservoirs are: (1) Hole-in-the-Wall; (2) Crazy Woman Creek; (3) Clear Creek; and (4) Moorhead. Hole-in-the-Wall and Crazy

TABLE 2

SELECTION OF CANDIDATE AREAS FOR ENERGY DEVELOPMENT--MONTANA[3]

Plant Reference[1] Code	Technology Type	Location (County)	Water Requirement AF/Year Divert	Water Requirement AF/Year Consume	Water Requirement AF/Year Discharge	Withdrawal Point[2]	Discharge Point[2]
B-1	Hi BTU - Lurgi	McCone	8,782	7,464	1,318	Fort Peck Reservoir	Milk River above Willow Creek
B-2	Hi BTU - Lurgi	Big Horn	8,782	7,464	1,318	Bighorn R. below Yellowtail	Bighorn R. below Yellowtail
B-3	Liquefaction	McCone	7,800	6,000	1,800	Fort Peck Reservoir	Fort Peck Reservoir
B-4	Liquefaction	Big Horn	7,800	6,000	1,800	Bighorn R. above Bighorn	Bighorn R. above Bighorn
B-5	Liquefaction	Powder River	7,800	6,000	1,800	Powder R. below Moorhead	Powder R. below Moorhead
B-6	Liquefaction	Yellowstone	6,630	5,100	1,530	Yellowstone R. above Billings	Yellowstone R. above Billings
A-1	Hi BTU - Lurgi	Big Horn	8,782	7,464	1,318	Tongue R. below Dam	Tongue R. below Dam
A-2	Hi BTU - Lurgi	McCone	8,782	7,464	1,318	Fort Peck Reservoir	Milk River above Willow Creek
A-3	Hi BTU - Lurgi	Big Horn	8,782	7,464	1,318	Tongue R. below Dam	Tongue R. below Dam
A-4	Hi BTU-Fluidized Bed	Big Horn	11,564	10,110	1,454	Tongue R. below Dam	Tongue R. below Dam
A-5	Hi BTU-Entrained Bed	Powder River	14,301	11,985	2,046	Powder R. below Moorhead	Powder R. below Moorhead
A-6	Lo BTU	Yellowstone	6,548	5,976	572	Yellowstone R. above Billings	Yellowstone R. above Billings
A-7	Liquefaction	McCone	7,800	6,000	1,800	Fort Peck Reservoir	Fort Peck Reservoir
A-8	Liquefaction	Big Horn	7,800	6,000	1,800	Tongue R. below Dam	Tongue R. below Dam
A-9	Liquefaction	Powder River	7,800	6,000	1,800	Powder R. below Moorhead	Powder R. below Moorhead
A-10	Liquefaction	Yellowstone	7,800	6,000	1,800	Yellowstone R. above Billings	Yellowstone R. above Billings
A-11	Liquefaction	Custer	7,800	6,000	1,800	Yellowstone R. below Miles City	Yellowstone R. below Miles City

[1] "B's" refer to baseline development levels; "A's" refer to plants in the DOE accelerated development level.

[2] Withdrawal and discharge stream reaches are identified by stream and location immediately above or below the gage at the location mentioned, i.e., for plant A-9 the withdrawal point is in the reach immediately below Moorhead and; thus, between Moorhead and Locate gages.

[3] Source: State of Montana

TABLE 3

SELECTION OF CANDIDATE AREAS FOR ENERGY DEVELOPMENT--WYOMING[1]

Plant Reference Code	Technology Type	Location (County)	Water Requirement AF/Year			Withdrawal Point	Discharge Point
			Divert	Consume	Discharge		
1[2 3]	Hi BTU - Lurgi	Sheridan	5,957	5,298	659	0629800	06306100
2	Hi BTU - Lurgi	Johnson	5,957	5,298	659	06320000	06320200
3	Hi BTU - Lurgi	Johnson	5,957	5,298	659	06320000	06320200
4	Hi BTU - Lurgi	Campbell	5,957	5,298	659	06425780 (or ground water)	06426500
5	Hi BTU - Lurgi	Converse	3,300	2,945	366	06649000 (06646800)	06652000
6	Hi BTU - Lurgi	Converse	3,300	2,945	366	06649000 (06646800) (If consecutive stations on the same stream are needed, both stations should be used.)	06652000
7	Hi BTU - Lurgi	Campbell	5,957	5,298	659	06324000	06324500
8	Hi BTU - Lurgi	Campbell	5,957	5,298	659	06425780	06426500
9	Hi BTU - Lurgi	Campbell	5,957	5,298	659	Madison ground water	
10	Hi BTU - Lurgi	Sheridan	5,957	5,298	659	06298000	06306100
11	Hi BTU - Lurgi	Johnson	5,957	5,298	659	0632000	06320200

1 Source: State of Wyoming

2 Plants 1 through 6 were included in the baseline development level

3 Plants 1 through 11 were included in the DOE accelerated development level

TABLE 4

SELECTION OF CANDIDATE AREAS FOR ENERGY DEVELOPMENT--NORTH DAKOTA[1]

BASELINE

Plant Reference Code	Technology Type	Location (County)	Water Requirement AF/Year			Withdrawal Point	Discharge Point
			Divert	Consume	Discharge		
1985	None						
2000							
	Hi BTU	Mercer	11,500	9,800	1,700	033800	033800
	Hi BTU	Mercer	11,500	9,800	1,700	033800	033800
	Hi BTU	Mercer	11,500	9,800	1,700	033800	033800
	Hi BTU	Dunn	11,500	9,800	1,700	033800	033800
	Hi BTU	Dunn	11,500	9,800	1,700	033800	033800
	Hi BTU	Golden Valley	11,500	9,800	1,700	329590	329590
	Hi BTU	Oliver	11,500	9,800	1,700	340700	340900
	Hi BTU	McLean	11,500	9,800	1,700	329590	329590
	Hi BTU	McLean	11,500	9,800	1,700	033800	033800
Coal Liquefaction							
	Liquefaction	Bowman	4,700	3,800	900	033800	352000
	Liquefaction	Bowman	4,700	3,800	900	033800	352000
	Liquefaction	Bowman	2,350	1,900	450	033800	352000

[1] Source: State of North Dakota

TABLE 5

SELECTION OF CANDIDATE AREAS FOR ENERGY DEVELOPMENT--NORTH DAKOTA[1]

ACCELERATED CASE

Plant Reference Code	Technology Type	Location (County)	Water Requirement AF/Year Divert	Consume	Discharge	Withdrawal Point	Discharge Point
1985							
	Hi BTU	Mercer	11,500	9,800	1,700	033800	033800
	Hi BTU	Mercer	11,500	9,800	1,700	033800	033800
	Hi BTU	Mercer	11,500	9,800	1,700	033800	033800
	Hi BTU	Dunn	11,500	9,800	1,700	033800	033800
	Hi BTU	Dunn	11,500	9,800	1,700	033800	033800
	Hi BTU	Golden Valley	11,500	9,800	1,700	329590	329590
2000							
	Hi BTU	Oliver	11,500	9,800	1,700	340900	340900
	Hi BTU	McLean	11,500	9,800	1,700	033800	033800
Coal Liquefaction							
	Liquefaction	Bowman	4,700	3,800	900	033800	352000
	Liquefaction	Bowman	4,700	3,800	900	033800	352000
	Liquefaction	Bowman	4,700	3,800	900	033800	352000
	Liquefaction	Hettinger	4,700	3,800	900	350000	351000

[1] Source: State of North Dakota

TABLE 6

SELECTION OF CANDIDATE AREAS FOR ENERGY DEVELOPMENT--SOUTH DAKOTA[1]

ACCELERATED CASE

Plant Reference Code	Technology Type	Location (County)	Water Requirement AF/Year			Withdrawal Point	Discharge Point
			Divert	Consume	Discharge		
	Hi BTU	Walworth	6,548	5,976	572	4399.8	4399.8

[1] Source: State of South Dakota

Woman Creek Reservoirs were combined and operated to regulate the 1975 flow level of the Powder River at Arvada, Wyoming. Existing operation studies of these proposed reservoirs, previously done by the State and the Bureau of Reclamation, were used as examples to establish the operating criteria presented in the following section. Area-capacity relationships were not available for some of these reservoirs; thus, estimates of evaportion were made based upon average end-of-month storage content and average water-surface area. This evaporation average was then applied to each year considered. Table 7 shows the average evaporation from an average surface area for each proposed reservoir.

Operating Criteria

Monthly Distribution of Irrigation Depletions

Montana--Calculations used to compute irrigation depletions for the year 2000 recommended plan of the Yellowstone Level B Study in Montana are discussed below.

Depletions for each of the four planning areas were calculated based upon each area's climatic characteristics and cropping patterns. Such data were available from previous Bureau of Reclamation planning studies. Table 8 provides an example of how these irrigation depletions were computed. The first five lines of this table show how the monthly distribution for depletions was established. Various Bureau of Reclamation Definite Plan Reports (DPR) were reviewed for information concerning diversion and return flow patterns for different areas throughout the Yellowstone Basin. From these, monthly distributions were established.

Following is a line-by-line description of table 8:

Line 1 - A monthly percentage distribution of diversions based upon information from the appropriate DPR

TABLE 7

AVERAGE EVAPORATION FOR PROPOSED RESERVOIRS--1,000 AF[1]

Average Surface Area	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Flathead Creek and Pryor Creek[2]													
200	.008	.008	.016	.022	.039	.044	.08	.06	.039	.012	.026	.006	.36
700	.028	.028	.056	.077	.137	.154	.280	.210	.137	.042	.091	.021	1.26
Elbow Creek and Blue Water[2]													
394	.008	.012	.02	.047	.087	.130	.213	.229	.162	.083	.047	.012	1.048
310	.006	.009	.016	.037	.068	.102	.167	.180	.127	.065	.037	.011	.825
Modified Tongue and Shutts Flats--South Fork[2]													
1,000	.06	.08	.10	.12	.22	.33	.56	.49	.29	.26	.10	.07	2.68
Hole-in-the-Wall, Crazy Woman, and Clear Creek													
1,040	.05	.05	.07	.17	.25	.36	.52	.52	.35	.30	.10	.05	2.79
100							.1	.1					.2
4,060	.25	.34	.29	.76	1.01	1.3	1.93	1.93	1.22	1.26	.55	.34	10.93

1 Reservoir evaporations are based on average reservoir surface-area acres and unit reservoir evaporation rates (acre-feet/acre).

2 These projects were proposed in the Yellowstone Level B Study. The reservoirs were operated as run-of-the-river reservoirs in this analysis.

TABLE 8

EXAMPLE OF IRRIGATION DEPLETIONS

Line		Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Total
Typical Area														
1[1]	Irrigation Diversion							7	12	21	27	20	13	100
2[1]	Diversion Rate (AF/AC)							.29	.45	.81	1.05	.77	.50	3.87
3[1]	Return Flow (%)	9	7	5	4	3	3	4	8	14	16	15	12	100
4[1]	Return Flow Rate (AF/AC)	.13	.10	.07	.06	.04	.04	.06	.12	.21	.23	.22	.18	1.46
5	Irrigation Depletion (AF/AC)	-.13	-.10	-.07	-.06	-.04	-.04	.23	.33	.60	.82	.55	.32	2.41
Irrigation Depletions by Area (AF/AC)														
6	Yellowstone River Main Stem Livingston to Sidney	-.023	-.087	-.070	-.052	-.035	-.052	.007	.273	.336	.771	.655	.407	2.13
7	Stillwater and Clarks Fork of Yellowstone River	.14	-.11	-.08	-.06	-.04	-.04	.17	.45	.46	.82	.68	.33	2.72
8	Bighorn River	-.15	-.12	-.09	-.07	-.05	-.05	-.07	.12	.55	.83	.80	.37	2.07
9	Tongue and Powder Rivers	-.10	-.08	-.06	-.05	-.03	-.03	-.05	.33	.32	.69	.61	.31	1.86

[1] Taken from Bureau of Reclamation Definite Plan Reports.

Line 2 - Shows monthly diversion requirement in acre-feet per acre from the DPR

Line 3 - A monthly percentage distribution of return flows based upon information from the appropriate DPR

Line 4 - Shows monthly return flows in acre-feet per acre from the DPR

Line 5 - Difference between lines 4 and 2 giving depletions from DPR information

Line 6 - Shows monthly depletion distribution for the Yellowstone River main stem (Livingston to Sidney, Montana)

Line 7 - Shows monthly depletion distribution for the Stillwater River and Clarks Fork of the Yellowstone

Line 8 - Shows monthly depletion distribution for the Bighorn River

Line 9 - Shows monthly depletion distribution for the Tongue and Powder Rivers

Wyoming--The irrigation depletions used were those developed for Wyoming in the Yellowstone Level B Study. These are shown on a percentage basis by month in table 9. The procedure used in this monthly distribution was the same as that used in deriving lines 8 and 9 of table 8.

Wyoming has both ground water and surface water irrigation development. The monthly percentage distribution of return flows as presented in table 9 is for ground water irrigation. This distribution is the return-flow percentage from ground water which is considered as a surface water return. These return-flow percentages came from the Bureau of Reclamation's Hanover Bluff Unit-Definite Plan Report

Monthly Distribution of Energy Depletions

Montana and Wyoming--Water depletions for use in energy processing within the area addressed by the Yellowstone Level B Study were quantified on an

TABLE 9

PERCENTS USED TO DETERMINE IRRIGATION DEPLETIONS

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec	.al
Bighorn River Basin													
Irrigation Diversion (AF/AC)					.26	.79	1.10	1.06	.57				3.78
Return Flow (AF/AC)	.07	.05	.05	.07	.14	.24	.27	.26	.20	.15	.12	.09	1.71
Irrigation Depletion (AF/AC)	-.07	-.05	-.05	-.07	.12	.55	.83	.80	.37	-.15	-.12	-.09	2.07
Irrigation Depletion (%)	-3	-2	-3	-4	6	27	40	38	18	-7	-6	-4	100
Tongue-Powder River Basin													
Irrigation Diversion (AF/AC)					.42	.48	.88	.78	.45				3.01
Return Flow (AF/AC)	.05	.03	.03	.05	.09	.16	.19	.17	.14	.10	.08	.06	1.15
Irrigation Depletion (AF/AC)	-.05	-.03	-.03	-.05	.33	.32	.69	.61	.31	-.10	-.08	-.06	1.86
Irrigation Depletion (%)	-3	-2	-2	-3	18	17	37	33	17	-5	-4	-3	100
Ground Water All Basin Areas													
Percent	4	3	3	4	8	14	16	15	12	9	7	5	100

annual basis. These annual depletions were transformed to a monthly format based upon the following percentage distribution:

Month	Percent of Total
January	8
February	7
March	8
April	8
May	9
June	9
July	10
August	10
September	7
October	8
November	8
December	8
Total	100

The water used for mining, dust control, and reclamation of strip-mined land was assumed to be provided by the same systems that provided water for the coal processing plants. Water consumptively used for reclamation was assumed to have the same monthly use as irrigation depletions, while water consumptively used for mining and dust control was assumed to have the same monthly use as the energy processing. The water consumption for mining, reclamation, and dust control for Section 13(a) and DOE Year 2000 Scenarios is shown in table 10.

TABLE 10

WATER CONSUMPTION FOR COAL MINING, RECLAMATION, AND DUST CONTROL USED IN SECTION 13(A) AND DOE COAL DEVELOPMENT SCENARIOS

Subarea	River	Section 13(a) Baseline Scenario Water Requirement			Department of Energy Scenario Water Requirement		
		Coal Production	Mining	Reclamation and Dust Control	Coal Production	Mining	Reclamation and Dust Control
		(10^6tons/yr)	(Ac-ft/yr)	(Ac-ft/yr)	(10^6tons/yr)	(Ac-ft/yr)	(Ac-ft/yr)
1	Yellowstone above Billings	0	0	0	0	0	0
2	Bighorn below St. Xaiver	20.2	400	1,100	13.7	270	740
3	Powder above Locate	6.8	100	400	14.4	210	844
	Tongue above Miles City	0	0	0	6.8	100	400
4	Missouri from Fort Peck	18.2	400	1,600	18.2	400	1,600
	Yellowstone below Miles City	0	0	0	6.8	100	400
5	Missouri at Lake Sakakawea						
	(Cannonball area)	17.4	300	2,600	26.1	450	3,900
	(Knife area)	57.6	1,200	8,600	57.6	1,200	8,600
	(Little Missouri area)	9.6	200	1,400	9.6	200	1,400
	(Missouri main stem)	19.2	400	2,800	9.6	200	1,400
7	Powder						
	(Belle Fourche area)	7.0	100	200	14.0	200	400
	(Powder area)	14.0	300	400	35.0	750	1,000
	Tongue	7.0	200	600	14.0	400	1,200
8	Missouri at Lake Oahe	0	0	0	8.8	200	600

Monthly Distribution of Municipal Depletions

Montana and Wyoming--Annual depletions for future municipal water needs within the Yellowstone Level B Study Area were distributed on a monthly basis as indicated below:

Month	Percent of Total
January	3
February	3
March	6
April	7
May	10
June	10
July	21
August	14
September	9
October	9
November	4
December	4
Total	100

Monthly Distribution of Industrial Depletions

Montana and Wyoming--Annual depletions for future nonenergy industrial uses of water within the Yellowstone Level B Study Area were distributed

monthly based upon the following:

Month	Percent of Total
January	8
February	7
March	8
April	8
May	9
June	9
July	10
August	10
September	7
October	8
November	8
December	8
Total	100

Monthly Distribution of Livestock Depletions

Montana and Wyoming--These depletions are partly the result of direct consumption with the remainder being evaporation. In the operation studies it was assumed that livestock depletions came directly from stockponds which depleted the natural flow of a stream during the spring runoff when they filled. Thus, it was assumed that 50 percent of the livestock depletions from streams occurred in May with the remaining 50 percent occurring in June. Applicable evaporation rates depended upon the climate of the area in question. Information on evaporation rates were obtained from the following sources:

(1) the Climatic Atlas of the United States;

(2) the MRB Comprehensive Framework Report, Vol. 6, Plate 10; and

(3) various USBR definite plan reports.

Reservoir Operation Criteria

Three m⁻,or existing reservoirs were operated using 1975 Bureau of Reclamation operating criteria and appropriate inflows as follows:

Boysen Reservoir

(1) Starting in October, estimate a uniform water release through January ending with a reservoir content of 580,000 acre-feet

(2) Release in February a quantity of water equal to January releases

(3) Assume that 100 percent of normal runoff is to occur after March 1. Make uniform reservoir releases such that the reservoir will be full at the end of July. Releases in March must not exceed 135,000 acre-feet.

(4) In July, do not exceed full reservoir content of 802,000 acre-feet

(5) Release inflow in August and September, but not less than 72,000 acre-feet in August and 71,400 acre-feet in September

Buffalo Bill Reservoir

(1) After reservoir storage peaks in June and July, release water needed for irrigation through September

(2) Starting in October, release water at a uniform rate such that reservoir storage drops to 200,000 acre-feet by the end of January. Releases should not be less than required for irrigation and powerplant capability.

(3) Assume 100 percent of normal runoff is to occur after February 1, filling the reservoir to capacity by June. Releases from the reservoir should be such that minimum storage in April is 169,000 acre-feet. The reservoir should not spill until April with most of the spill coming in June

(4) Make minimum river releases at the dam of 50 cfs and at Heart Mountain Powerplant of 200 cfs

(5) The maximum reservoir content is 423,900 acre-feet

Yellowtail Reservoir

(1) Make uiform releases from January through March bringing reservoir storage down to 805,000 acre-feet, assuming a forecast of 100 percent of normal inflow

(2) Assuming a forecast of 90 percent of normal inflow, make uniform releases from April through June such that the reservoir fills to capacity in June

(3) With storage at the capacity of 1,116,000 acre-feet, make releases in July to bring storage down to 1,068,000 acre-feet

(4) From August through December, release inflows and stored water necessary to draw the reservoir down to 980,000 acre-feet in December

(5) Minimum monthly power releases are made to hold a firm monthly power output from January through December of 40.3, 40.0, 44.6, 45.2, 41.4, 44.1, 42.0, 44.7, 45.2, 53.9, 51.6, and 44.1 million killowatt hours, respectively

Proposed Reservoirs

Operation of the reservoirs proposed in the recommended plan of the Yellowstone Level B Study was identical for each. The operating criteria are as follows:

(1) From November through February, inflow was passed through the reservoir if the inflow was greater than downstream water demands and instream flow requirements. If the inflow was less than downstream demands and instream flow requirements, releases were made from storage to make up the difference.

(2) From March through October, only enough water to satisfy downstream needs was released with any excess inflow being stored. An instream flow release was made to keep water in the stream.

(3) Instream flows from the reservoir were set at either 80 cfs or 50 cfs reflecting the approximate instream flow that could be stored in the reservoir after all other demands were met.

Results

Projections of depleted streamflows based upon the operation studies are summarized in the tables which follow this section. The tables include a calculated flow record for each emerging energy technology scenario and water-supply alternatives considered in the Section 13(a) Water Assessment. Gaging stations for which such tables were calculated are indicated by an * on table 1.

Average annual flows at selected gaging stations in the Yellowstone Basin are shown in tables 11 and 12. Streamflow depletions due to energy development which are in excess of the depletions indicated in the recommended plan of the Yellowstone Level B Study are also shown.

Under water supply alternatives 2 and 3, water for emerging energy technology development was pumped from the Bighorn or Yellowstone Rivers. As shown in table 11, flows in the Yellowstone at Sidney, Montana, exhibit nearly identical depletions under all three alternatives. At Miles City, Montana, depletions from the Yellowstone vary according to the point of water withdrawal. Operation studies for alternatives 2 and 3 indicate that the associated water depletions would leave very low flows in the Yellowstone River in some months during dry years. These low flows could be augmented if the Bighorn River reservoirs were operated differently. In this assessment, these reservoirs were operated primarily for flood control and power generation. Years having subnormal spring runoff can be predicted from snow surveys, in which case power generation could be decreased to support instream flows.

TABLE 11

AVERAGE ANNUAL FLOW AND DEPLETIONS FOR VARIOUS PLANS--1,000 AF

Plan	Yellowstone at Sidney		Yellowstone at Miles City		Yellowstone at Billings	
	Flows	Depletion	Flows	Depletion	Flows	Depletion
Yellowstone recommended development minus gasification	7,770	0	7,599	0	5,189	0
Alt. 1 WRC Baseline	7,726	44	7,575	24	5,184	5
Alt. 1 DOE	7,664	106	7,546	53	5,177	12
Alt. 2 WRC Baseline	7,725	45	7,554	45	5,184	5
Alt. 2 DOE	7,662	108	7,496	103	5,177	12
Alt. 3 WRC Baseline	7,725	45	7,580	19	5,184	5
Alt. 3 DOE	7,663	107	7,587	12	5,177	12

NOTE: WRC - Water Resources Council
DOE - Department of Energy
Alt. 1 - Water from nearest source (Tongue and Powder Rivers)
Alt. 2 - Water from Bighorn River
Alt. 3 - Water from Yellowstone River

TABLE 12

AVERAGE ANNUAL FLOW AND DEPLETIONS FOR VARIOUS PLANS--1,000 AF

Plan	Powder at Locate		Powder at Arvada		Tongue at Miles City	
	Flows	Depletion	Flows	Depletion	Flows	Depletion
Yellowstone recommended development minus gasification	314	0	156.1	0	210	0
Alt. 1 WRC Baseline	294	20	156.1	0	204	6
Alt. 1 DOE	267	47	156.1	0	168	42
Alt. 2 WRC Baseline	314	0	156.1	0	210	0
Alt. 2 DOE	314	0	156.1	0	210	0
Alt. 3 WRC Baseline	314	0	156.1	0	210	0
Alt. 3 DOE	314	0	156.1	0	210	0

NOTE: WRC - Water Resources Council
DOE - Department of Energy
Alt. 1 - Water from nearest source (Tongue and Powder Rivers)
Alt. 2 - Water from Bighorn River
Alt. 3 - Water from Yellowstone River

An analysis of water use from reservoir storage under conditions of normal and low runoff was conducted. Tables 13 through 15 contain storage and drawdown data for eight reservoirs in the Yellowstone Basin. Table 14 illustrates that during the low-runoff year of 1961, additional releases from Boysen Reservoir could have been made to support streamflow on the Bighorn River below Yellowtail Dam and also on the Yellowstone River below the mouth of the Bighorn. Also, the storage provided in the proposed reservoir on the Tongue River is completely utilized during these dry-year conditions. On the Powder River, Clear Creek Reservoir uses about 50 percent of its active storage content during the dry year while all of the active storage content in Hole-in-the-Wall Reservoir is so used and only about 20 percent of Moorhead Reservoir storage is used. In summary, Moorhead Reservoir could be sized down from that proposed in the Yellowstone Level B recommended plan so as to provide better use and regulation of water in the Powder River Basin.

Under water-supply alternative 1, water for energy development was taken from the Tongue and Powder Rivers with regulation by the reservoirs in the Yellowstone Level B recommended plan.

Two reservoirs in the Tongue River Basin, Prairie Dog and South Fork Tongue, regulated water to provide all of the water needed for the Yellowstone Level B year 2000 recommended plan and both emerging energy development scenarios in Wyoming. In conjunction with operating these reservoirs to satisfy the water needs of projected energy developments, an instream flow of 80 cfs was maintained in the Tongue River of Wyoming. The New Tongue River Reservoir would provide water storage in Montana capable of providing water for the energy development levels specified in the Yellowstone Level B Study as well as the Section 13(a) Baseline and DOE Accelerated Synfuel Development Scenarios. Also, the New Tongue Reservoir would be operated so as to maintain an instream flow of 50 cfs below the dam.

TABLE 13

RESERVOIR CONTENT AND WITHDRAWAL FOR BASELINE
SCENARIO AND ALTERNATIVE 1-1,000 AF

Reservoir	Maximum Content	Minimum Content	Average years Lowest Content and (Draw Down)	Year 1961 Lowest Content and (Draw Down)
Boysen	802	252	482.1 (320)	570.3 (232)
Buffalo Bill	423.9	48.2	145.0 (279)	48.2 (376)
Bighorn Lake	1116	483.4	752.7 (363)	483.4 (632.6)
Prairie Dog and	39	9		
South Fork Tongue	8	2.3		
	47.0	11.3	36.0 (11.0)	15.6 (31.4)
New Tongue River	320.0	1.4	250.0 (70.0)	46.5 (273.5)
Hole-in-the-Wall and	45.0	5.0		
Crazy Woman	9.0	4.6		
	54.0	9.6	37.3 (16.7)	9.5 (44.5)
Clear Creek	261.0	30.0	239.1 (21.9)	178.1 (82.9)
Moorhead	750.0	150.0	722.4 (27.6)	645.3 (104.7)

TABLE 14

RESERVOIR CONTENT AND WITHDRAWAL
FOR DOE SCENARIO AND ALTERNATIVE 1--1,000 AF

Reservoir	Maximum Content	Minimum Content	Average Years Lowest Content and (Draw Down)	Year 1961[1] Lowest Content and (Draw Down)
Boysen	802	252	482.1 (320)	570.3 (232)
Buffalo Bill	423.9	48.2	145.0 (279)	48.2 (376)
Bighorn Lake	1,116	483.4	752.7 (363)	483.4 (632.6)
Prairie Dog and South Fork Tongue	39.0 8.0 47.0	9.0 2.3 11.3	35.4 (11.6)	14.8 (32.2)
New Tongue River	320.0	1.4	230.8 (89.2)	1.4 (318.6)
Hole-in-the-Wall and Crazy Woman	45.0 9.0 54.0	5.0 4.6 9.6	37.3 (16.7)	9.6 (44.4)
Clear Creek	261.0	30.0	226.7 (34.3)	145.9 (115.1)
Moorhead	750.0	150.0	718.3 (31.7)	626.8 (123.2)

1 1961 was a low runoff year

TABLE 15

RESERVOIR CONTENT AND WITHDRAWAL FOR BASELINE AND DOE SCENARIO AND ALTERNATIVE 2 AND 3 -1,000 AF

Reservoir	Maximum Content	Minimum Content	Year 1961 Lowest Content and (Draw Down)	Year 1961 Lowest Content and (Draw Down)
Boysen	802	252	482.1 (320)	570.3 (232)
Buffalo Bill	423.9	48.2	145.0 (279)	48.2 (376)
Bighorn Lake	1116	483.4	752.7 (363)	483.4 (632.6)
Prairie Dog and	39	9		
South Fork Tongue	8	2.3		
	47.0	11.3	37.1 (9.9)	17.6 (29.4)
New Tongue River	320.0	1.4	240.9 (79.1)	22.7 (297.3)
Hole-in-the-Wall and	45.0	5.0		
Crazy Woman	9.0	4.6		
	54.0	9.6	37.3 (16.7)	9.6 (44.4)
Clear Creek	261.0	30.0	245.0 (16.0)	197.1 (63.9)
Moorhead	750.0	150.0	725.6 (24.4)	658.4 (91.6)

Reservoirs operated under the year 2000 recommended plan of the Yellowstone Level B Study in the Powder River Basin included Hole-in-the-Wall, Middle Fork Crazy Woman, Clear Creek, and Moorhead. Water was supplied for irrigation, energy production, and municipal, industrial, and livestock needs below these reservoirs. The operation study for Clear Creek Reservoir indicated an area of water shortage above the reservoir. The study showed that water for approximately 6,000 acres of irrigated land identified in the year 2000 recommended plan of the Yellowstone Level B Study would be insufficient during years of low runoff. In the DOE Scenario, three coal conversion plants with a total annual water requirement of 15,890 acre-feet would be developed in the Clear Creek drainage. This would require taking 2,300 acres of existing irrigated land out of production in order to provide a full water supply without storage. The maximum annual water shortage for energy development was 7,000 acre-feet. In nearly every year, this shortage occurred during the months of July, August, and September. Assuming an annual discharge of 130,000 acre-feet, which is equivalent to the average annual discharge at the 1975 depletion level, storage of 21,000 acre-feet of water (three years carryover) would supply the water necessary to provide a full supply without taking existing irrigated acreage out of production. A similar analysis of the Yellowstone recommended plan can be made to supply irrigated lands with water from storage during years of shortage, thus, providing a full water supply to the entire Powder River Basin. Under the Section 13(a) Baseline Scenario, 1,600 acres of existing irrigated land would need to be removed from production in the Clear Creek drainage if a storage facility was not provided.

In summary, an adequate amount of water exists in the Yellowstone River Basin to supply all recommended developments as projected in the Yellowstone Level B Study and the emerging energy technology development scenarios assessed in the Section 13(a) Water Assessment, provided that water is regulated by new storage or presently irrigated land is taken out of production in upper drainage areas. This development would result in generally reduced instream flows at the gaging stations considered in this assessment.

APPENDED MATERIAL

Appended Material

Appended are the results of the operation studies for the Yellowstone Level B year 2000 recommended plan and for each of the two energy scenarios assessed by alternative water supply. This results in a total of seven operation studies which are presented for each gaging station. The results are numbered and arranged by gaging stations; therefore, all of the same number summaries are for the same scenario. The statistical analysis of this period of record includes the average, median, 80th, 60th, 40th, and 20th percentile, and the maximum and minimum. The 80th percentile data were used by the instream flow group in their analysis.

STILLWATER RIVER AT ABSAROKEE

1. 2000 Recommend Development Minus Gasif

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. 2000 Recommend and Baseline Development

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. 2000 Recommend and DOE Development

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. 2000 Recommend and Baseline from Bighorn

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. 2000 Recommend and DOE from Bighorn

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. 2000 Recommend and Baseline from Yellowstone

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. 2000 Recommend and DOE from Yellowstone

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL B OPERATION STUDY
2000 REQUIRED DEVELOPMENT MINUS BASIF

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	17.3	20.0	45.7	41.5	50.5	26.0	15.7	16.0	15.0	12.1	405.7
1940	[illegible]	[illegible]	11.1	15.1	101.5	214.3	71.0	25.2	24.5	27.4	10.0	16.1	543.1
1941	[illegible]	[illegible]	15.2	15.0	55.6	159.2	84.7	52.5	64.7	52.6	30.3	25.2	630.9
1942	23.3	15.2	15.7	30.7	102.0	205.8	201.0	50.5	30.2	32.5	25.7	22.6	760.3
1943	14.5	15.3	23.5	70.5	109.0	284.6	271.3	81.9	52.2	35.3	25.6	20.9	1023.1
1944	15.5	17.1	15.4	16.3	105.0	280.5	220.2	60.6	45.1	35.2	25.8	20.9	849.5
1945	12.7	15.1	13.2	25.0	80.5	211.5	225.2	73.9	43.0	30.5	25.4	19.9	764.7
1946	19.0	13.4	14.5	29.5	65.4	172.4	115.5	39.6	32.7	31.6	24.0	20.5	580.7
1947	19.5	13.2	25.1	34.4	125.5	185.5	142.5	62.3	44.3	43.0	27.5	21.7	796.4
1948	17.2	17.7	21.2	23.5	119.5	274.2	131.0	65.2	28.4	25.8	22.0	16.6	767.4
1949	15.2	1?.4	15.1	27.9	113.3	171.6	96.3	37.7	33.0	29.3	22.0	16.5	569.9
1950	11.2	13.8	15.5	20.1	51.7	207.5	167.0	62.9	45.4	38.3	30.0	23.3	706.5
1951	20.8	16.4	19.9	25.9	95.6	137.7	176.9	84.4	38.6	34.5	25.4	19.0	699.1
1952	16.2	14.5	17.5	40.4	135.7	225.0	135.0	71.6	35.1	24.9	22.3	19.4	759.6
1953	17.3	15.1	15.3	19.7	45.4	180.0	136.0	55.5	28.6	21.3	20.7	18.2	574.4
1954	13.8	15.7	12.1	20.0	97.5	125.4	156.6	44.3	23.7	26.1	22.7	16.0	579.8
1955	12.9	12.0	12.7	21.8	47.1	145.6	97.1	36.3	21.7	23.0	18.5	19.0	470.6
1956	17.5	14.5	22.1	26.2	140.5	232.9	106.6	53.1	28.0	23.9	22.2	22.9	710.2
1957	13.4	12.2	14.3	19.4	139.5	342.2	226.9	58.0	40.9	32.9	26.9	24.1	952.7
1958	14.9	16.5	15.3	19.5	145.5	171.1	65.6	51.2	32.5	25.5	24.3	22.7	631.6
1959	16.3	13.1	19.4	24.2	55.5	265.6	126.4	43.6	20.5	31.9	28.1	21.9	680.8
1960	15.2	13.1	13.3	13.3	39.3	145.5	56.4	32.6	16.4	21.5	19.9	17.6	412.4
1961	15.1	14.3	12.6	6.6	55.4	148.9	46.4	27.6	44.9	41.5	32.5	26.6	474.3
1962	20.7	22.4	19.1	33.5	74.5	235.1	152.4	71.1	45.6	37.6	25.0	21.0	759.2
1963	16.4	14.9	15.0	20.3	99.5	265.8	119.2	43.5	41.0	29.5	23.9	17.9	714.1
1964	16.4	15.0	14.5	17.6	59.4	202.4	175.2	42.3	23.3	20.7	23.4	22.9	643.2
1965	20.4	13.5	15.4	25.0	56.0	244.9	204.9	77.9	48.4	39.0	25.6	21.3	800.2
1966	13.5	16.5	16.2	27.4	104.5	137.6	88.4	43.0	29.4	31.4	22.5	19.0	556.5
1967	19.5	15.2	21.0	15.7	73.0	325.0	272.0	63.4	41.1	47.6	29.5	19.3	942.3
1968	14.9	14.2	27.0	21.0	53.7	250.2	166.7	87.0	53.4	39.7	25.6	21.1	786.3
1969	14.9	16.3	15.4	25.5	95.6	172.3	159.9	50.5	25.8	26.6	23.9	16.4	656.2
1970	14.3	14.5	13.4	16.5	120.2	332.7	159.3	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.5	17.9	27.6	94.5	281.9	187.2	70.8	63.7	44.9	31.8	23.0	887.7
1972	16.9	23.9	34.0	24.9	94.8	238.3	127.2	68.4	63.6	43.7	29.3	22.9	801.8
1973	17.5	15.4	15.2	39.1	112.9	207.5	130.7	47.3	54.1	33.2	24.9	21.2	725.0
1974	20.1	16.0	20.0	28.8	63.4	342.5	225.7	74.8	42.8	33.2	26.4	17.6	911.2
1975	15.1	11.3	15.4	35.2	118.0	271.4	405.7	86.5	35.3	0.0	0.0	0.0	999.3
AVERAGE	17.8	15.5	15.1	25.3	90.5	219.0	150.6	56.5	38.3	31.6	24.2	19.6	713.7
MEDIAN	16.4	15.2	17.5	25.0	95.6	207.5	136.6	52.5	38.6	31.9	25.0	20.9	710.2
80 PERCENTILE	14.5	12.2	14.3	18.5	55.6	145.9	89.7	39.6	25.6	24.9	22.0	17.9	574.4
60 PERCENTILE	17.3	13.0	15.5	20.1	74.8	135.5	128.4	50.2	32.5	29.5	23.9	19.3	656.2
40 PERCENTILE	13.9	13.7	15.2	25.5	94.8	232.9	159.9	60.8	42.8	33.2	25.6	21.2	759.6
20 PERCENTILE	19.9	16.4	20.0	28.8	113.3	274.2	201.0	71.6	46.4	39.0	26.1	22.9	801.6
MAXIMUM	23.3	23.9	34.0	70.5	146.3	342.5	272.0	86.4	64.7	52.6	32.5	26.6	1023.1
MINIMUM	11.2	10.1	11.1	6.5	39.3	41.5	40.4	25.2	15.7	16.0	15.0	12.1	403.7

2000 RECOMEND AND BASELINE DEVELOPMEN

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	19.5	11.7	17.0	20.0	96.7	91.5	60.5	26.0	15.7	18.0	15.0	12.1	403.7
1940	13.2	12.2	11.1	18.1	101.5	204.3	71.0	25.2	24.5	27.4	18.6	16.1	543.1
1941	18.7	11.3	13.2	16.8	86.8	169.2	89.7	52.5	64.7	52.6	30.3	25.2	630.9
1942	25.5	15.2	15.7	30.7	102.0	208.8	201.0	50.5	30.2	32.3	25.9	22.6	760.3
1943	19.6	18.5	28.6	70.5	109.0	289.6	271.3	81.9	52.2	35.3	25.8	20.9	1023.1
1944	13.5	10.1	15.9	18.3	105.0	280.5	220.2	60.8	45.1	33.2	25.8	20.9	849.3
1945	18.3	15.1	18.2	23.0	60.6	211.6	225.2	73.9	43.0	30.6	25.4	19.9	764.7
1946	19.0	15.4	19.6	29.6	60.4	172.4	115.8	39.6	32.7	31.8	24.0	20.5	580.7
1947	19.6	15.2	25.1	34.4	125.6	185.5	192.3	62.3	44.3	43.0	27.5	21.7	796.4
1948	17.2	17.7	21.2	26.5	119.5	274.2	131.0	65.2	28.4	25.8	22.0	18.8	767.4
1949	15.2	10.4	16.1	27.9	113.3	171.8	96.8	37.7	33.0	29.3	22.0	16.5	589.9
1950	11.2	13.8	16.8	20.1	51.7	207.5	187.6	62.9	45.4	38.3	30.0	23.3	708.5
1951	20.8	18.4	19.9	25.9	95.6	137.7	178.9	84.4	38.6	34.6	25.4	19.0	699.1
1952	16.2	14.3	17.5	40.4	138.0	225.0	135.0	71.6	35.1	24.9	22.3	19.4	759.6
1953	17.6	15.1	15.3	19.7	45.9	180.0	136.6	55.5	28.6	21.3	20.7	18.2	574.4
1954	13.8	15.7	18.1	20.0	97.5	125.4	156.6	44.3	23.7	26.1	22.7	16.0	579.8
1955	12.9	12.0	12.7	21.8	47.1	148.8	97.1	36.3	21.7	23.0	18.5	19.0	470.8
1956	17.5	14.5	22.1	26.2	140.3	232.9	106.6	53.1	28.0	23.9	22.2	22.9	710.2
1957	13.4	12.2	14.3	19.4	139.6	342.2	226.9	58.0	40.9	32.9	28.9	24.1	952.7
1958	19.9	16.5	16.3	19.5	146.8	171.1	85.6	51.2	32.5	25.5	24.3	22.7	631.8
1959	18.6	15.1	19.4	24.2	56.6	266.6	128.4	43.6	26.5	31.9	28.1	21.9	680.8
1960	18.2	13.1	13.5	13.3	39.3	148.5	56.4	32.6	18.4	21.5	19.9	17.8	412.4
1961	15.1	14.3	12.6	8.6	55.4	148.9	46.4	27.6	44.9	41.5	32.5	26.6	474.3
1962	20.7	22.4	19.1	33.5	74.8	236.1	152.4	71.1	45.6	37.6	25.0	21.0	759.2
1963	18.4	19.9	15.0	20.3	99.8	265.8	119.2	43.5	41.0	29.5	23.9	17.9	714.1
1964	16.4	15.0	14.5	17.8	69.4	202.4	175.2	42.3	23.3	20.7	23.4	22.9	643.2
1965	20.4	18.5	16.4	25.0	58.0	244.9	204.9	77.9	48.4	39.0	25.6	21.3	800.2
1966	18.5	16.6	18.2	27.4	104.6	137.6	88.4	43.0	29.4	31.4	22.5	19.0	556.5
1967	19.6	15.2	21.0	15.7	73.0	325.0	272.0	63.4	41.1	47.6	29.5	19.3	942.3
1968	19.8	19.2	27.0	21.0	53.7	250.2	168.7	87.0	53.4	39.7	25.6	21.1	786.3
1969	19.9	18.3	18.4	25.5	96.8	172.3	159.9	50.5	25.8	26.6	23.9	18.4	656.2
1970	14.3	14.5	13.4	18.5	120.2	332.7	159.3	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.6	17.9	27.6	94.5	281.9	187.2	70.8	63.7	44.9	31.8	23.0	887.7
1972	18.9	25.9	34.0	24.9	84.8	238.3	127.2	88.4	63.6	43.7	29.3	22.9	801.8
1973	17.6	16.4	18.2	39.1	112.9	207.5	130.7	47.3	54.1	33.2	24.9	21.2	723.0
1974	20.1	16.0	20.0	28.8	63.4	342.5	225.7	74.8	42.8	33.2	26.4	17.6	911.2
1975	16.1	11.8	18.4	36.2	118.0	271.4	405.7	86.5	35.3	0.0	0.0	0.0	999.3
AVERAGE	17.8	15.6	18.1	25.3	90.8	219.0	156.6	56.5	38.3	31.6	24.2	19.8	713.7
MEDIAN	18.4	15.2	17.5	23.0	95.6	207.5	136.6	52.5	38.6	31.9	25.0	20.9	710.2
80 PERCENTILE	14.3	12.2	14.3	18.3	56.6	148.9	89.7	39.6	25.8	24.9	22.0	17.9	574.4
60 PERCENTILE	17.6	15.0	16.3	20.1	74.8	185.5	128.4	50.2	32.5	29.5	23.9	19.3	656.2
40 PERCENTILE	18.9	15.7	18.2	25.5	99.8	232.9	159.9	60.8	42.8	33.2	25.6	21.2	759.6
20 PERCENTILE	19.9	18.4	20.0	28.8	113.3	274.2	201.0	71.6	48.4	39.0	28.1	22.9	801.8
MAXIMUM	25.5	25.9	34.0	70.5	146.8	342.5	272.0	88.4	64.7	52.6	32.5	26.6	1023.1
MINIMUM	11.2	10.1	11.1	8.6	39.3	91.5	46.4	25.2	15.7	18.0	15.0	12.1	403.7

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	19.5	11.7	17.0	20.0	95.7	91.5	60.5	26.0	15.7	18.0	15.0	12.1	403.7
1940	13.2	12.2	11.1	13.1	101.5	204.3	71.0	25.2	24.5	27.4	16.6	16.1	543.1
1941	16.7	11.3	15.2	16.8	86.3	159.2	89.7	52.5	64.7	52.6	30.3	25.2	630.9
1942	25.5	15.2	15.7	30.7	102.0	203.8	201.0	50.5	30.2	32.3	25.9	22.6	760.3
1943	14.5	15.5	25.0	70.5	109.0	289.6	271.3	81.9	52.2	35.3	25.8	20.9	1023.1
1944	13.6	10.1	15.9	13.5	105.0	280.5	220.2	60.6	45.1	35.2	25.6	20.9	849.3
1945	16.3	13.1	15.2	23.0	60.5	211.6	225.2	73.9	43.0	30.6	25.4	19.9	764.7
1946	19.0	15.4	19.5	29.5	60.4	172.4	115.8	39.6	32.7	31.8	24.0	20.5	580.7
1947	19.5	15.2	25.1	34.4	125.6	185.5	192.3	62.3	44.3	43.0	27.5	21.7	796.4
1948	17.2	17.7	21.2	25.5	119.5	274.2	131.0	65.2	28.4	25.8	22.0	18.6	767.4
1949	15.2	10.4	15.1	27.9	113.3	171.8	96.8	37.7	35.0	29.3	22.0	16.5	589.9
1950	11.2	15.5	16.8	20.1	51.7	207.5	187.6	62.9	45.4	38.3	30.0	23.3	706.5
1951	20.6	16.4	19.9	25.9	95.6	137.7	178.9	84.4	38.6	34.6	25.4	19.0	699.1
1952	16.2	14.3	17.5	40.4	135.0	225.0	135.0	71.6	35.1	24.9	22.3	19.4	759.6
1953	17.5	15.1	13.3	19.7	45.9	180.0	136.5	55.5	28.6	21.3	20.7	18.2	574.4
1954	13.8	15.7	18.1	20.0	97.5	125.4	156.6	44.3	23.7	26.1	22.7	16.0	579.6
1955	12.9	12.0	12.7	21.8	47.1	148.8	97.1	36.3	21.7	23.0	18.5	19.0	470.8
1956	17.5	14.5	22.1	26.2	140.3	232.9	106.6	53.1	28.0	23.9	22.2	22.9	710.2
1957	13.4	12.2	14.3	19.4	139.6	342.2	226.9	58.0	40.9	32.9	28.9	24.1	952.7
1958	19.9	16.5	15.3	19.5	145.8	171.1	85.6	51.2	32.5	25.5	24.3	22.7	631.8
1959	18.5	13.1	19.4	24.2	55.5	266.6	126.4	43.6	26.5	31.9	26.1	21.9	680.8
1960	18.2	13.1	13.5	13.3	39.3	148.5	56.4	32.6	18.4	21.5	19.9	17.8	412.4
1961	15.1	14.3	12.6	8.6	55.4	148.9	46.4	27.6	44.9	41.5	32.5	26.6	474.3
1962	20.7	22.4	19.1	33.5	74.8	236.1	152.4	71.1	45.6	37.6	25.0	21.0	759.2
1963	13.4	19.9	13.0	20.3	99.2	255.6	119.2	45.5	41.0	29.5	23.9	17.9	714.1
1964	16.4	15.0	14.5	17.6	69.4	202.4	175.2	42.3	23.3	20.7	23.4	22.9	643.2
1965	20.4	18.5	15.4	23.0	58.0	244.9	204.9	77.9	46.4	34.0	25.6	21.3	800.2
1966	16.5	16.6	18.2	27.4	104.6	137.6	88.4	43.0	29.4	31.4	22.5	19.0	556.5
1967	19.5	13.2	21.0	15.7	73.0	325.0	272.0	63.4	41.1	47.6	29.5	19.3	942.3
1968	19.8	14.2	27.0	21.0	53.7	250.2	166.7	87.0	53.4	39.7	25.6	21.1	786.3
1969	19.9	16.3	18.4	23.5	96.6	172.3	159.9	50.5	25.8	26.6	23.9	18.4	656.2
1970	14.3	14.5	13.4	18.5	120.2	332.7	159.3	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.5	17.9	27.6	94.5	281.9	187.2	70.8	63.7	44.9	31.8	23.0	887.7
1972	18.9	25.9	34.0	24.9	84.8	238.3	127.2	86.4	63.6	43.7	29.3	22.9	801.6
1973	17.5	16.4	18.2	39.1	112.9	237.5	130.7	47.3	54.1	33.2	24.9	21.2	723.0
1974	20.1	15.0	20.0	28.6	65.4	342.5	225.7	74.6	42.8	33.2	26.4	17.5	911.2
1975	16.1	11.8	18.4	36.2	118.0	271.4	405.7	86.5	35.3	0.0	0.0	0.0	999.3
AVERAGE	17.8	15.6	18.1	25.3	90.3	219.0	156.6	56.5	38.3	31.6	24.2	19.8	713.7
MEDIAN	18.4	15.2	17.5	23.0	95.6	207.5	136.6	52.5	38.6	31.9	25.0	20.9	710.2
80 PERCENTILE	14.5	12.2	14.3	16.3	56.6	146.9	89.7	39.6	25.8	24.9	22.0	17.9	574.4
60 PERCENTILE	17.6	15.0	15.3	20.1	74.8	183.5	126.4	50.2	32.5	29.5	23.9	19.3	656.2
40 PERCENTILE	18.9	15.7	18.2	23.5	99.3	232.9	159.9	60.6	42.6	33.2	25.6	21.2	759.6
20 PERCENTILE	19.9	18.4	20.0	26.8	113.3	274.2	201.0	71.6	48.4	39.0	28.1	22.9	801.8
MAXIMUM	25.5	25.9	34.0	70.5	145.8	342.5	272.0	86.4	64.7	52.6	32.5	26.6	1023.1
MINIMUM	11.2	10.1	11.1	8.5	39.3	91.5	46.4	25.2	15.7	18.0	15.0	12.1	403.7

ST[illegible] 4   [illegible] SECTION 13A ENERGY ASSESSMENT   78/10/04.

[illegible] REQUIRED [illegible] BASELINE FROM [illegible]

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	19.5	11.7	17.7	[illegible]	95.7	91.5	60.5	26.0	15.7	16.0	15.0	12.1	405.7
1940	15.2	12.2	11.1	16.1	101.5	204.5	71.0	25.2	24.5	27.4	12.6	16.1	543.1
1941	15.7	11.5	15.2	13.4	26.4	169.2	89.7	52.5	64.7	52.6	30.3	25.2	630.9
1942	25.5	11.2	15.7	30.7	102.9	203.5	261.0	50.5	30.2	32.3	25.9	22.6	760.5
1943	14.5	[illegible]	25.5	71.5	109.0	239.5	271.3	61.9	52.2	35.3	25.8	20.9	1025.1
1944	15.5	[illegible]	[illegible]	[illegible]	145.5	260.5	220.2	60.0	45.1	35.2	25.6	20.9	849.3
1945	18.5	13.1	13.2	23.0	60.6	211.6	225.2	73.9	43.0	30.6	25.4	19.9	764.7
1946	19.0	[illegible]	19.0	24.5	50.4	172.4	115.0	39.6	32.7	31.0	24.0	20.5	580.7
1947	14.5	13.2	23.1	54.4	125.5	185.5	192.5	62.5	44.5	45.0	27.5	21.7	796.4
1948	17.2	17.7	[illegible]	26.5	113.5	274.2	131.0	65.2	28.4	25.3	22.0	16.8	767.4
1949	13.2	10.4	13.1	21.9	115.5	171.6	96.3	37.7	33.0	29.3	22.0	16.5	589.9
1950	11.2	13.0	13.5	20.1	51.7	217.5	167.5	82.9	45.4	30.5	30.0	25.3	708.5
1951	20.5	13.4	19.4	25.9	95.6	157.7	176.9	84.4	36.6	34.0	25.4	19.0	699.1
1952	16.2	14.5	17.5	40.4	150.0	225.0	135.0	71.0	35.1	24.9	22.3	19.4	759.6
1953	17.5	[illegible]	15.5	19.7	45.9	130.0	155.5	55.5	28.6	21.3	20.7	16.2	574.4
1954	15.5	15.7	[illegible]	[illegible]	47.5	125.4	156.6	44.3	23.7	26.1	22.7	16.0	579.6
1955	12.9	12.0	12.7	21.6	47.1	148.6	97.1	36.3	21.7	25.0	16.5	19.0	470.8
1956	17.6	14.5	22.1	26.2	140.3	232.9	106.6	55.1	28.0	23.9	22.2	22.9	710.2
1957	13.4	12.2	14.5	19.4	139.6	342.2	226.9	56.0	40.9	32.9	26.9	24.1	952.7
1958	14.9	[illegible]	15.5	[illegible]	140.5	171.1	85.6	51.2	32.5	25.5	24.3	22.7	631.8
1959	16.5	15.1	14.4	24.2	55.5	205.6	120.4	43.6	26.5	31.9	26.1	21.9	660.8
1960	16.2	15.1	15.5	15.3	39.3	145.5	56.4	32.6	16.4	21.5	19.4	17.6	412.4
1961	15.1	14.5	12.6	5.6	53.4	146.9	46.4	27.6	44.9	41.5	32.5	20.6	474.3
1962	20.7	22.4	14.1	35.5	74.5	236.1	152.4	71.1	45.6	37.6	25.0	21.0	759.2
1963	16.4	[illegible]	[illegible]	24.5	99.5	265.8	119.2	43.5	41.0	29.5	23.9	17.9	714.1
1964	16.4	15.0	14.5	17.6	69.4	202.4	175.2	42.3	23.3	20.7	23.4	22.9	645.2
1965	20.4	16.5	15.4	25.0	58.0	244.9	204.9	77.9	46.4	39.0	25.6	21.5	800.2
1966	18.5	[illegible]	15.2	27.4	104.6	137.6	88.4	45.0	29.4	31.4	22.5	19.0	556.5
1967	19.6	15.2	21.0	15.7	75.0	325.0	272.0	65.4	41.1	47.6	29.5	19.5	942.3
1968	19.3	[illegible]	[illegible]	21.0	53.7	250.2	168.7	87.0	53.4	34.7	25.6	21.1	786.5
1969	[illegible]	[illegible]	15.4	25.5	95.5	172.3	154.9	50.5	25.6	20.6	23.9	18.4	650.2
1970	14.5	14.5	13.4	18.5	120.2	332.7	154.5	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.5	17.9	27.6	94.5	281.9	187.2	70.8	65.7	44.9	31.8	23.0	887.7
1972	18.9	25.9	34.0	24.9	64.3	235.5	127.2	88.4	63.6	43.7	29.5	22.9	801.8
1973	17.5	[illegible]	15.2	34.1	[illegible]	207.5	150.7	47.3	54.1	33.2	24.9	21.2	723.0
1974	20.1	[illegible]	20.0	25.6	65.4	342.5	225.7	74.3	42.6	35.2	26.4	17.6	911.2
1975	15.1	11.5	16.4	36.2	116.0	271.4	405.7	66.5	35.3	0.0	0.0	0.0	999.5
AVERAGE	17.3	[illegible]	15.1	23.5	90.6	219.0	156.6	56.5	38.3	31.0	24.2	19.8	715.7
MEDIAN	16.4	[illegible]	17.5	23.0	95.5	207.5	150.6	52.5	36.6	31.9	25.0	20.9	710.2
90 PERCENTILE	14.5	[illegible]	[illegible]	15.5	56.6	146.9	64.7	34.6	25.6	24.9	[illegible]	17.9	574.4
60 PERCENTILE	[illegible]	[illegible]	15.5	20.1	74.3	165.5	126.4	50.2	32.5	29.5	23.9	19.3	650.2
40 PERCENTILE	[illegible]	13.7	15.2	25.5	99.3	232.9	159.9	60.6	42.6	33.2	25.6	21.2	759.0
20 PERCENTILE	14.9	[illegible]	20.0	25.5	115.5	274.2	261.0	71.6	46.4	39.0	28.1	22.9	801.8
MAXIMUM	25.5	25.9	[illegible]	71.5	145.5	342.5	272.0	88.4	64.7	52.6	32.5	25.6	1025.1
MINIMUM	11.2	[illegible]	11.1	5.5	39.5	91.5	46.4	25.2	15.7	16.0	15.0	12.1	405.7

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	17.[illegible]	2[illegible]	96.7	41.5	63.5	26.0	15.7	16.0	15.0	12.1	403.7
1940	15.2	13.2	11.1	13.1	101.5	204.3	71.0	25.2	24.5	27.4	18.0	16.1	543.1
1941	19.7	11.5	15.[illegible]	1[illegible].0	96.[illegible]	154.2	89.7	52.5	64.7	52.0	30.3	25.2	650.9
1942	25.5	[illegible]	15.7	30.7	102.0	205.8	201.0	50.5	30.2	32.5	25.9	22.6	760.3
1943	19.5	[illegible]	26.5	70.5	1[illegible]	234.5	271.3	81.9	52.2	33.3	25.8	20.9	1025.1
1944	15.5	10.1	15.3	15.5	105.0	230.5	220.2	60.8	45.1	33.2	25.8	20.9	849.5
1945	13.5	13.1	15.2	25.0	50.5	211.6	225.2	75.9	45.0	30.6	25.4	19.9	764.7
1946	19.[illegible]	15.4	19.6	29.5	60.4	172.4	115.8	39.6	32.7	31.8	24.0	20.5	580.7
1947	19.5	15.2	25.1	34.4	125.5	185.5	192.3	62.5	44.3	43.0	27.5	21.7	796.4
1948	17.2	17.7	21.2	25.5	119.5	274.2	151.0	65.2	28.4	25.6	22.0	16.8	767.4
1949	13.2	10.4	15.1	27.9	115.3	171.8	96.8	37.7	33.0	29.3	22.0	16.5	589.9
1950	11.2	15.6	15.6	20.1	51.7	207.5	167.0	62.9	45.4	36.3	30.0	25.3	706.5
1951	20.5	16.4	19.9	25.9	95.5	137.7	176.9	84.4	36.6	34.6	25.4	19.0	697.1
1952	15.2	14.5	17.5	40.4	158.0	225.0	155.0	71.6	35.1	24.9	22.3	19.4	759.6
1953	17.5	[illegible].1	15.3	19.7	45.9	160.0	136.6	55.5	26.6	21.5	20.7	18.2	574.4
1954	15.2	15.7	16.1	20.0	37.5	125.4	156.6	44.3	25.7	26.1	22.7	16.0	579.6
1955	12.9	12.[illegible]	12.7	21.8	47.1	148.6	97.1	36.5	21.7	23.0	16.5	19.0	470.8
1956	17.5	1[illegible].5	22.1	26.2	140.5	232.9	106.6	53.1	28.0	23.9	22.2	22.9	710.2
1957	13.4	12.2	14.3	19.4	134.6	342.2	226.9	56.0	40.9	32.9	28.9	24.1	952.7
1958	19.9	16.5	16.3	19.5	146.3	171.1	65.6	51.2	32.5	25.5	24.3	22.7	631.6
1959	15.5	15.1	19.4	24.2	55.6	266.6	128.4	45.6	26.5	31.9	28.1	21.9	680.8
1960	16.2	13.1	15.5	13.3	59.5	143.5	56.4	32.6	18.4	21.5	19.9	17.8	412.4
1961	15.1	14.3	12.6	5.6	55.4	140.9	45.4	27.6	44.9	41.5	32.5	26.6	474.3
1962	20.7	22.4	19.1	33.5	74.5	235.1	152.4	71.1	45.6	37.6	25.0	21.0	759.2
1963	16.4	14.9	15.0	20.3	99.[illegible]	253.6	119.2	45.5	41.0	29.5	23.9	17.9	714.1
1964	16.4	13.0	14.5	17.8	69.4	202.4	175.2	42.3	23.3	20.7	23.4	22.9	643.2
1965	20.4	13.5	16.4	25.0	55.0	244.9	204.9	77.9	48.4	39.0	25.6	21.3	800.2
1966	18.5	16.6	18.2	27.4	104.6	137.6	88.4	43.0	29.4	31.4	22.5	19.0	556.5
1967	19.5	15.2	21.0	15.7	75.0	325.0	272.0	65.4	41.1	47.6	29.5	19.3	942.3
1968	19.5	14.2	27.0	21.0	55.7	230.2	166.7	67.0	55.4	34.7	25.6	21.1	786.3
1969	19.9	13.3	15.4	25.5	96.3	172.3	154.9	50.5	25.8	20.6	23.9	18.4	656.2
1970	14.3	14.5	13.4	18.5	120.2	332.7	159.5	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.5	17.9	27.6	94.5	281.9	187.2	70.6	63.7	44.9	31.8	23.0	887.7
1972	16.9	25.9	34.0	24.9	84.3	253.3	127.2	86.4	63.6	43.7	29.3	22.9	801.8
1973	17.5	16.4	16.2	39.1	112.9	207.[illegible]	130.7	47.3	54.1	35.2	24.9	21.2	725.0
1974	20.1	13.0	20.0	28.8	63.4	342.5	225.7	74.8	42.8	33.2	26.4	17.6	911.2
1975	16.1	11.0	16.4	36.2	116.0	271.4	405.7	86.5	35.3	0.0	0.0	0.0	994.3
AVERAGE	17.3	15.6	15.1	25.3	90.5	214.0	156.6	56.5	38.3	31.6	24.2	19.8	715.7
MEDIAN	16.4	15.2	17.5	25.0	95.6	207.5	136.6	52.5	36.6	31.9	25.0	20.9	710.2
80 PERCENTILE	14.3	12.2	14.5	16.5	56.5	140.9	89.7	39.6	25.8	24.9	22.0	17.9	574.4
60 PERCENTILE	17.5	15.0	15.3	20.1	74.6	185.5	128.4	50.2	32.5	29.5	23.9	19.3	656.2
40 PERCENTILE	16.9	15.7	15.2	25.5	99.8	232.9	159.9	60.8	42.6	35.2	25.6	21.2	759.6
20 PERCENTILE	19.9	16.4	20.0	28.8	115.3	274.2	201.[illegible]	71.[illegible]	45.4	39.0	28.1	22.9	801.8
MAXIMUM	25.5	25.9	34.0	70.5	146.3	342.5	272.0	86.4	64.7	52.6	32.5	26.6	1025.1
MINIMUM	11.2	10.1	11.1	5.6	59.[illegible]	41.5	46.4	23.2	15.7	16.0	15.0	12.1	403.7

STREAM ... 6

1980 SECTION 13A ENERGY ASSESSMENT
2000 PROJECTED AND BASELINE FROM YELLO

78/10/04.

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	14.3	1[illegible].7	17.[illegible]	20.0	9[illegible].7	41.5	60.5	20.0	15.7	15.0	15.0	12.1	405.7
1940	13.[illegible]	[illegible]	11.[illegible]	13.1	101.5	204.3	71.0	25.2	25.5	27.4	18.6	16.1	543.1
1941	13.7	11.5	15.2	13.0	85.[illegible]	159.2	64.7	52.5	64.7	52.6	30.3	25.2	630.9
1942	[illegible]	[illegible]	15.7	30.7	162.[illegible]	200.8	201.0	50.5	[illegible].2	32.5	25.3	22.6	760.3
1943	1[illegible].3	1[illegible].3	23.[illegible]	7[illegible].5	104.[illegible]	239.6	271.5	61.9	52.2	35.5	25.0	20.9	1025.1
1944	15.[illegible]	1[illegible].1	13.9	1[illegible].5	10[illegible].0	230.5	220.2	60.2	45.1	35.2	25.6	20.9	649.5
1945	16.5	13.1	15.2	25.0	60.5	211.6	225.2	73.9	43.0	30.8	25.4	19.9	764.7
1946	19.[illegible]	13.4	17.6	29.3	50.4	172.4	115.3	59.6	32.7	31.5	24.0	20.3	580.7
1947	14.5	[illegible]	25.1	34.4	125.5	165.5	192.5	62.5	44.3	45.0	27.5	21.7	796.4
1948	17.[illegible]	[illegible].7	21.2	23.5	119.5	274.2	151.0	65.2	23.4	25.0	22.0	18.8	767.4
1949	15.[illegible]	1[illegible].4	15.1	27.9	113.8	171.6	95.6	37.7	35.0	29.5	22.0	16.5	589.9
1950	11.2	13.6	16.5	20.1	51.7	207.5	187.6	62.9	45.4	30.5	30.0	23.3	708.5
1951	20.[illegible]	13.4	19.3	25.9	95.5	137.7	176.9	84.4	50.6	34.6	23.4	19.0	699.1
1952	15.2	14.5	17.5	40.4	158.[illegible]	225.0	135.0	71.6	35.1	24.9	22.3	19.4	759.6
1953	17.5	15.1	15.5	19.7	45.4	139.0	150.6	55.5	20.6	21.3	20.7	16.2	574.4
1954	15.5	13.7	13.1	20.0	47.5	125.4	150.6	44.3	25.7	20.1	22.7	16.0	579.8
1955	12.[illegible]	1[illegible]	1[illegible].7	21.0	47.1	143.8	97.1	55.3	21.7	23.[illegible]	15.5	19.0	470.3
1956	17.5	14.2	22.1	25.2	140.3	232.9	106.0	53.1	28.0	23.9	22.2	22.9	710.2
1957	13.[illegible]	1[illegible].2	14.3	1[illegible].4	139.5	342.2	220.9	58.0	40.9	32.9	20.9	24.1	952.7
1958	14.4	15.5	15.3	19.3	145.[illegible]	171.1	85.0	51.2	32.5	25.5	24.3	22.7	631.8
1959	[illegible]	13.1	19.6	24.2	55.0	255.6	128.4	43.6	20.5	31.9	28.1	21.9	680.8
1960	15.2	13.1	13.5	13.3	39.5	140.5	50.4	32.6	18.4	21.5	19.9	17.8	412.4
1961	1[illegible].1	14.3	12.6	5.0	55.4	148.9	46.4	27.6	44.9	41.5	32.5	20.6	474.3
1962	2[illegible].7	2[illegible]	19.1	35.5	74.3	250.1	152.4	71.1	45.5	37.6	25.0	21.0	759.2
1963	13.4	1[illegible].9	13.0	2[illegible].5	44.3	255.8	119.2	45.5	41.0	29.5	25.9	17.9	714.1
1964	16.4	15.1	14.5	17.0	69.1	202.4	175.2	42.5	23.5	20.7	23.4	22.9	643.2
1965	2[illegible].4	15.5	15.4	25.0	58.[illegible]	244.9	204.9	77.9	48.4	34.0	25.6	21.3	800.2
1966	13.5	16.0	13.2	27.4	104.5	137.6	83.4	43.0	29.4	31.4	22.5	19.0	556.5
1967	17.5	13.[illegible]	21.[illegible]	13.7	73.[illegible]	325.0	272.0	63.4	41.1	47.6	29.5	19.3	942.3
1968	14.[illegible]	19.[illegible]	27.[illegible]	21.0	55.7	230.2	165.7	87.0	55.4	39.7	25.6	21.1	780.5
1969	17.7	13.5	13.4	23.5	90.8	172.3	159.9	50.5	25.6	20.6	23.9	18.4	650.2
1970	14.3	14.3	13.4	18.5	120.2	352.7	159.3	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.6	17.9	27.5	94.5	281.9	187.2	70.3	63.7	44.9	31.6	23.0	887.7
1972	15.9	23.9	34.0	21.9	84.3	230.5	127.2	68.4	65.6	45.7	29.5	22.9	801.8
1973	17.3	13.4	18.2	39.1	112.9	207.5	150.7	47.3	54.1	33.2	24.9	21.2	723.0
1974	[illegible].1	[illegible]	2[illegible]	25.6	65.4	342.5	225.7	74.3	42.8	35.2	26.4	17.6	911.2
1975	1[illegible].1	11.[illegible]	13.4	30.2	110.[illegible]	271.4	405.7	80.3	35.3	0.0	0.0	0.0	999.5
[illegible]	17.3	15.[illegible]	1[illegible].1	25.5	90.3	217.0	155.5	56.5	38.5	31.6	24.2	19.8	715.7
[illegible]	1[illegible].4	15.[illegible]	17.3	25.0	95.5	207.5	156.6	52.5	38.6	31.9	23.0	20.3	710.2
[illegible]	[illegible]	[illegible]	[illegible]	1[illegible].5	55.6	133.9	59.7	39.6	25.8	24.9	22.0	17.9	574.4
[illegible] PERCENTILE	17.3	13.[illegible]	13.5	20.1	74.3	155.5	122.4	50.2	32.5	24.5	23.4	19.3	656.2
[illegible] PERCENTILE	13.4	[illegible]	19.2	23.5	99.6	232.9	159.9	50.8	42.8	33.2	25.6	21.2	759.6
[illegible] PERCENTILE	14.9	[illegible]	21.0	28.8	113.3	274.2	201.0	71.6	48.4	39.0	25.1	22.9	801.5
[illegible]	25.5	2[illegible]	34.0	70.5	145.9	342.5	272.0	85.4	64.7	52.5	32.5	26.6	1025.1
[illegible]	11.2	1[illegible].1	11.1	[illegible]	39.5	41.5	46.4	23.2	15.7	15.0	15.0	12.1	405.7

STILLWATER RIVER AT ABSAROKEE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	14.5	11.7	17.0	20.0	45.7	91.5	60.5	26.0	15.7	18.0	15.0	12.1	403.7
1940	15.2	12.2	11.1	18.1	101.5	204.3	71.0	25.2	24.5	27.4	18.6	16.1	543.1
1941	13.7	11.5	15.2	16.8	99.5	159.2	89.7	52.5	64.7	52.6	30.3	25.2	630.9
1942	25.5	15.2	15.7	30.7	102.0	208.8	201.0	50.5	30.2	32.5	25.9	22.0	760.3
1943	14.5	13.5	25.5	70.5	109.0	239.6	271.5	51.9	52.2	35.5	25.8	20.9	1023.1
1944	15.5	10.1	15.9	18.3	105.0	280.5	220.2	60.8	45.1	33.2	25.8	20.9	849.3
1945	18.3	15.1	13.2	23.0	50.6	211.6	225.2	73.9	43.0	30.6	25.4	19.9	764.7
1946	19.0	15.4	14.5	29.6	60.4	172.4	115.6	39.6	32.7	31.8	24.0	20.5	580.7
1947	14.5	15.2	25.1	34.4	125.5	185.5	192.3	62.3	44.3	43.0	27.5	21.7	796.4
1948	17.2	17.7	21.2	20.5	119.5	274.2	131.0	65.2	26.4	25.8	22.0	18.8	767.4
1949	15.2	10.4	16.1	27.9	113.3	171.6	96.8	37.7	33.0	29.3	22.0	16.5	589.9
1950	11.2	13.8	15.3	20.1	51.7	207.5	167.6	62.9	45.4	38.3	30.0	23.3	708.5
1951	20.3	13.4	19.4	25.9	95.6	137.7	175.9	84.4	35.6	34.5	25.4	19.0	699.1
1952	16.2	14.3	17.5	40.4	150.0	225.0	135.0	71.6	35.1	24.9	22.3	19.4	759.6
1953	17.5	15.1	15.3	19.7	45.4	180.0	136.6	55.5	28.6	21.3	20.7	18.2	574.4
1954	13.5	15.7	13.1	20.0	97.5	125.4	156.6	44.3	23.7	26.1	22.7	16.0	579.8
1955	12.9	12.0	12.7	21.5	47.1	148.8	97.1	36.3	21.7	23.0	18.5	19.0	470.8
1956	17.5	14.5	22.1	25.2	140.3	232.9	106.6	53.1	28.0	23.9	22.2	22.9	710.2
1957	13.4	12.2	14.3	19.4	139.6	342.2	226.9	58.0	40.9	32.9	28.9	24.1	952.7
1958	14.9	15.5	15.3	19.5	146.8	171.1	85.6	51.2	32.5	25.5	24.3	22.7	631.8
1959	16.5	15.1	19.4	24.2	55.5	266.6	126.4	43.6	25.5	31.9	28.1	21.9	680.8
1960	16.2	13.1	13.5	13.3	39.3	148.5	56.4	32.6	18.4	21.5	19.9	17.8	412.4
1961	15.1	14.3	12.6	8.6	55.4	148.9	46.4	27.6	44.9	41.5	32.5	26.6	474.3
1962	20.7	22.4	19.1	33.5	74.8	236.1	152.4	71.1	45.6	37.6	25.0	21.0	759.2
1963	16.4	14.9	15.0	20.3	99.6	265.8	119.2	43.5	41.0	29.5	23.9	17.9	714.1
1964	16.4	15.0	14.5	17.8	69.4	202.4	175.2	42.3	23.3	20.7	23.4	22.9	643.2
1965	20.4	18.5	15.4	25.0	58.0	244.9	204.9	77.9	48.4	39.0	25.6	21.3	800.2
1966	18.5	15.5	16.2	27.4	104.5	137.6	88.4	43.0	29.4	31.4	22.5	19.0	556.5
1967	19.5	15.2	21.0	15.7	73.0	325.0	272.0	65.4	41.1	47.6	29.5	19.3	942.3
1968	19.3	19.2	27.0	21.0	53.7	250.2	168.7	87.0	53.4	39.7	25.6	21.1	786.3
1969	19.9	16.3	15.4	25.5	95.6	172.3	159.9	50.5	25.8	26.6	23.9	18.4	656.2
1970	14.3	14.5	13.4	18.5	120.2	332.7	159.3	50.2	52.4	35.6	26.2	22.7	859.9
1971	22.9	21.6	17.9	27.6	94.5	281.9	187.2	70.8	63.7	44.9	31.8	23.0	887.7
1972	16.9	25.9	34.0	24.9	64.8	238.3	127.2	88.4	53.6	43.7	29.3	22.9	801.8
1973	17.5	16.4	15.2	39.1	112.9	207.5	130.7	47.3	54.1	33.2	24.9	21.2	723.0
1974	20.1	16.0	20.0	26.8	63.4	342.5	225.7	74.8	42.8	33.2	26.4	17.6	911.2
1975	16.1	11.8	16.4	36.2	118.0	271.4	405.7	86.5	35.3	0.0	0.0	0.0	999.3
AVERAGE	17.8	15.6	16.1	25.5	90.8	219.0	156.6	56.5	38.3	31.6	24.2	19.8	713.7
MEDIAN	15.4	15.2	17.5	23.0	95.6	207.5	136.6	52.5	38.6	31.9	25.0	20.9	710.2
80 PERCENTILE	14.3	12.2	14.3	18.3	56.6	148.9	89.7	39.6	25.8	24.9	22.0	17.9	574.4
60 PERCENTILE	17.5	15.0	16.3	20.1	74.8	185.5	126.4	50.2	32.5	29.5	23.9	19.3	656.2
40 PERCENTILE	18.9	15.7	15.2	25.5	99.8	232.9	159.9	60.8	42.8	33.2	25.6	21.2	759.6
20 PERCENTILE	19.9	18.4	20.0	28.8	113.3	274.2	201.0	71.6	46.4	39.0	28.1	22.9	801.8
MAXIMUM	25.5	25.9	34.0	70.5	146.8	342.5	272.0	88.4	64.7	52.6	32.5	26.6	1023.1
MINIMUM	11.2	10.1	11.1	8.6	39.5	91.5	46.4	25.2	15.7	18.0	15.0	12.1	403.7

YELLOWSTONE RIVER AT LIVINGSTON

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

2000 REDUCED DEVELOPMENT MINUS BASIS

YELLOWSTONE RIVER AT LIVINGSTON

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	62.5	61.9	57.5	130.4	539.3	497.5	512.6	156.2	104.4	102.4	76.4	66.6	2246.2
1940	55.7	55.2	71.2	94.1	455.5	576.2	244.1	115.4	89.9	95.7	76.3	72.3	2004.6
1941	65.0	61.4	66.2	73.5	323.0	426.2	231.0	152.0	160.5	171.7	131.4	110.3	1984.1
1942	57.2	76.0	80.5	137.6	315.6	546.7	456.2	185.5	115.2	99.9	88.9	79.1	2450.6
1943	69.9	62.1	63.5	199.8	426.4	1101.4	418.1	311.2	171.1	128.7	102.5	85.4	3560.1
1944	74.5	63.0	71.9	73.3	295.0	591.8	380.2	170.4	120.2	114.5	94.5	73.9	
1945	65.4	52.9	65.7	72.2	250.5	664.9	501.6	265.5	169.3	147.4	118.5	95.1	2352.9
1946	83.3	74.1	89.5	200.6	395.3	635.4	324.7	162.7	115.6	114.5	97.7	84.8	2384.1
1947	66.0	62.5	77.6	95.7	539.5	793.2	544.9	267.2	172.5	150.3	116.3	98.1	2985.3
1948	83.9	77.8	80.2	99.5	541.7	1021.4	425.4	220.7	129.2	111.3	93.7	73.3	2958.0
1949	59.5	55.4	69.5	149.4	576.2	739.5	386.5	194.2	127.4	125.2	100.3	73.0	2656.8
1950	55.3	54.9	57.3	93.0	250.5	877.5	694.6	282.0	176.7	164.9	156.9	115.8	2969.7
1951	85.2	76.4	83.4	123.5	515.3	708.0	576.0	326.1	162.0	149.6	114.3	87.3	3027.5
1952	73.0	69.0	75.6	171.4	626.6	835.6	400.9	213.3	125.1	101.2	79.0	72.0	2845.6
1953	75.5	63.2	70.2	85.1	190.7	755.5	455.1	169.7	117.3	101.1	88.7	73.4	2247.4
1954	61.0	55.0	60.6	92.6	494.3	680.0	556.0	229.4	137.5	104.3	89.4	75.6	2636.6
1955	65.3	57.2	71.7	78.0	255.2	507.0	352.9	189.5	115.6	108.3	93.9	65.9	2063.9
1956	85.8	75.7	86.1	130.2	564.6	1096.4	505.6	220.7	129.2	114.7	95.8	80.4	3186.1
1957	66.7	62.1	79.3	78.4	416.2	895.9	490.0	217.8	136.4	118.1	96.0	82.8	2739.6
1958	65.9	61.0	76.2	80.1	471.5	545.5	249.8	148.0	97.6	82.1	84.3	80.6	2043.8
1959	65.6	46.7	62.4	86.1	232.2	955.0	468.5	194.2	124.5	129.5	101.9	91.1	2558.1
1960	80.0	71.7	91.5	114.4	263.5	629.2	244.4	142.8	95.4	94.4	87.7	75.7	1990.9
1961	65.7	60.9	69.4	70.2	259.3	617.1	217.8	120.6	117.0	140.5	120.0	93.9	1952.3
1962	84.0	66.5	91.8	175.7	507.1	906.1	537.9	252.4	144.8	124.2	108.5	96.4	3115.1
1963	65.1	80.0	73.2	85.1	416.0	857.0	412.9	187.9	132.9	114.4	99.9	83.4	2611.7
1964	63.5	55.9	55.0	64.7	362.3	875.6	629.4	255.9	148.7	117.4	102.2	90.9	2842.4
1965	66.3	74.1	61.7	116.9	559.9	1160.1	783.9	323.5	199.9	174.8	129.6	101.8	3592.4
1966	82.0	66.6	61.5	106.6	418.2	550.0	281.5	147.9	110.6	103.6	87.4	77.9	2093.5
1967	75.0	72.0	82.6	84.6	509.7	1122.1	778.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	80.4	82.3	93.1	95.2	275.5	1059.1	606.0	317.0	220.7	183.1	136.0	106.8	3238.9
1969	66.1	92.0	98.5	155.5	673.9	705.1	486.3	213.7	127.5	123.2	104.1	90.0	2969.8
1970	80.5	75.4	85.3	81.5	409.5	1089.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.8	91.4	97.1	110.1	482.6	1213.0	805.2	314.5	191.6	162.3	129.5	99.2	3787.2
1972	85.2	81.6	105.3	117.1	424.0	1185.3	559.4	260.0	199.3	191.8	140.7	110.4	3461.7
1973	109.4	66.3	90.8	86.0	355.0	666.6	347.1	163.0	133.2	126.5	112.9	93.1	2382.8
1974	75.3	65.5	82.3	135.1	375.0	1338.1	736.6	292.8	159.2	137.3	104.5	87.8	3592.2
1975	69.5	65.5	83.3	84.2	203.8	819.5	914.0	308.7	178.0	.2	.8	.6	2726.4
AVERAGE	75.1	68.9	79.3	110.8	401.3	822.6	497.5	222.9	143.3	124.8	102.0	85.4	2733.8
MEDIAN	73.3	66.3	80.2	98.2	409.6	734.5	468.5	213.7	132.9	123.2	101.9	85.9	2656.8
80 PERCENTILE	65.5	56.4	69.5	80.1	265.5	607.0	312.6	155.2	115.6	102.4	88.7	73.9	2093.5
60 PERCENTILE	68.3	62.6	75.6	88.0	362.3	696.7	412.9	189.7	127.4	114.5	96.0	82.8	2552.9
40 PERCENTILE	80.4	72.0	82.6	110.1	424.0	875.6	537.9	229.4	144.8	126.7	104.5	90.9	2958.0
20 PERCENTILE	83.5	77.8	89.5	149.4	515.8	1089.0	606.0	274.2	172.5	149.6	118.5	98.1	3200.5
MAXIMUM	109.4	92.0	105.8	200.6	673.9	1338.1	618.1	326.1	220.7	191.8	140.7	115.8	3787.2
MINIMUM	55.3	45.7	55.0	70.2	195.7	428.2	217.8	115.4	89.9	82.1	76.4	66.6	1952.3

2000 RECOMEND AND BASELINE DEVELOPMEN

YELLOWSTONE RIVER AT LIVINGSTON

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	82.3	67.9	87.8	150.4	539.8	497.5	312.6	158.2	104.4	102.4	76.4	66.6	2246.2
1940	56.7	55.2	71.2	94.1	455.6	576.2	244.1	115.4	89.9	95.7	78.3	72.3	2004.6
1941	68.0	61.4	68.2	73.5	328.0	428.2	231.0	152.0	160.5	171.7	131.4	110.3	1984.1
1942	87.2	76.0	80.8	157.6	315.6	696.7	468.2	185.5	115.2	99.9	88.9	79.1	2450.6
1943	69.9	62.1	83.6	199.8	426.4	1101.4	818.1	311.2	171.1	128.7	102.5	85.4	3560.1
1944	74.5	68.6	71.9	78.3	295.0	591.8	380.2	170.4	120.2	114.5	94.5	73.9	2133.7
1945	65.4	52.9	65.7	72.2	256.5	664.9	581.6	265.5	169.3	147.4	118.5	93.1	2552.9
1946	88.3	74.1	89.5	200.6	396.3	635.4	324.7	162.7	115.6	114.5	97.7	84.8	2384.1
1947	66.0	62.6	77.8	96.7	539.8	793.2	544.9	267.2	172.5	150.3	116.3	98.1	2985.3
1948	43.9	77.8	80.2	99.5	541.7	1021.4	425.4	220.7	129.2	111.3	93.7	73.3	2958.0
1949	59.5	56.4	69.3	149.4	576.2	739.5	386.5	194.2	127.4	125.2	100.3	73.0	2656.8
1950	55.8	54.8	57.3	93.0	260.5	877.5	694.6	282.0	176.7	164.9	136.9	115.8	2969.7
1951	85.2	76.4	83.4	123.5	515.8	708.0	576.0	326.1	182.0	149.6	114.3	87.3	3027.5
1952	73.0	69.0	76.6	171.4	628.6	835.6	400.9	213.3	125.1	101.2	79.0	72.0	2845.6
1953	73.5	63.2	70.2	83.1	196.7	735.5	455.1	189.7	117.3	101.1	88.7	73.4	2247.4
1954	61.0	56.0	60.6	92.6	494.3	680.0	556.0	229.4	137.5	104.3	89.4	75.6	2636.6
1955	68.8	57.2	71.7	78.0	235.2	607.0	352.9	189.5	115.6	108.3	93.9	85.9	2063.9
1956	85.8	76.7	86.1	130.2	564.6	1096.4	505.6	220.7	129.2	114.7	95.8	80.4	3186.1
1957	66.7	62.1	79.3	78.4	416.2	895.9	490.0	217.8	136.4	118.1	96.0	82.8	2739.6
1958	66.9	61.0	76.2	80.1	471.8	545.5	249.8	148.0	97.6	82.1	84.3	80.6	2043.8
1959	63.8	48.7	62.4	86.1	232.2	955.0	468.5	194.2	124.5	129.8	101.9	91.1	2558.1
1960	80.0	71.7	91.8	114.4	263.5	629.2	244.4	142.8	95.4	94.4	87.7	75.7	1990.9
1961	65.7	60.9	69.4	70.2	259.3	617.1	217.8	120.6	117.0	140.5	120.0	93.9	1952.3
1962	84.0	86.3	91.8	175.7	507.1	906.1	537.9	252.4	144.8	124.2	108.5	96.4	3115.1
1963	66.1	80.0	78.2	83.1	416.0	857.0	412.9	187.9	132.9	114.4	99.9	83.4	2611.7
1964	65.5	55.9	56.0	84.7	362.3	875.6	629.4	253.9	148.7	117.4	102.2	90.9	2842.4
1965	86.3	74.1	81.7	116.9	359.9	1160.1	783.9	323.5	199.9	174.8	129.6	101.8	3592.4
1966	82.0	66.6	81.3	106.6	418.2	530.0	281.5	147.9	110.6	103.6	87.4	77.9	2093.5
1967	75.0	72.0	82.6	84.6	369.7	1122.1	778.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	80.4	82.3	93.1	96.2	278.5	1039.1	606.0	317.0	220.7	183.1	136.0	106.6	3238.9
1969	88.1	92.0	98.5	165.5	673.9	705.1	488.3	213.7	127.5	123.2	104.1	90.0	2969.8
1970	80.5	75.4	83.3	81.5	409.6	1089.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.8	91.4	97.1	110.1	482.6	1213.0	805.2	314.5	191.6	162.3	129.5	99.2	3787.2
1972	88.2	81.8	103.8	117.1	424.0	1185.3	559.4	260.0	199.3	191.8	140.7	110.4	3461.7
1973	100.4	86.3	90.8	88.0	355.0	666.6	347.1	183.0	133.2	126.5	112.9	93.1	2382.8
1974	73.8	68.3	82.8	133.1	378.0	1338.1	736.6	292.8	159.2	137.3	104.5	87.8	3592.2
1975	69.8	63.8	83.3	84.2	203.8	819.3	914.0	308.7	178.0	.2	.8	.6	2726.4
AVERAGE	75.1	68.9	79.3	110.8	401.3	822.6	497.5	222.9	143.3	124.8	102.0	85.4	2733.8
MEDIAN	73.8	68.3	80.2	96.2	409.6	739.5	468.5	213.7	132.9	123.2	101.9	85.9	2656.8
80 PERCENTILE	65.5	56.4	69.3	80.1	263.5	607.0	312.6	158.2	115.6	102.4	88.7	73.9	2093.5
60 PERCENTILE	68.8	62.6	76.6	88.0	362.3	696.7	412.9	189.7	127.4	114.5	96.0	82.8	2552.9
40 PERCENTILE	80.4	72.0	82.6	110.1	424.0	875.6	537.9	229.4	144.8	128.7	104.5	90.9	2958.0
20 PERCENTILE	85.4	77.8	89.5	149.4	515.8	1089.0	606.0	274.2	172.5	149.6	118.5	98.1	3200.5
MAXIMUM	100.4	92.0	103.8	200.6	673.9	1338.1	818.1	326.1	220.7	191.8	140.7	115.8	3787.2
MINIMUM	55.8	48.7	56.0	70.2	196.7	428.2	217.8	115.4	89.9	82.1	76.4	66.6	1952.3

YRBC SEC 13A ENERGY ASSESSMENT
2000 RECOMMEND AND DOE DEVELOPMENT

YELLOWSTONE RIVER AT LIVINGSTON

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	82.5	67.9	87.5	150.4	539.8	497.5	312.6	158.2	104.4	102.4	76.4	66.6	2246.2
1940	56.7	55.2	71.2	94.1	455.5	576.2	244.1	115.4	89.9	95.7	78.3	72.3	2004.6
1941	68.0	61.4	68.2	73.5	328.0	428.2	231.0	152.0	160.5	171.7	131.4	110.3	1984.1
1942	87.2	76.0	80.8	157.6	315.6	696.7	468.2	185.5	115.2	99.9	88.9	79.1	2450.6
1943	69.9	62.1	83.6	199.8	426.4	1101.4	818.1	311.2	171.1	128.7	102.5	85.4	3560.1
1944	74.5	68.6	71.9	78.3	295.0	591.6	380.2	170.4	120.2	114.5	94.5	73.9	2133.7
1945	65.4	52.9	65.7	72.2	256.5	664.9	581.6	265.5	169.3	147.4	118.5	93.1	2552.9
1946	88.3	74.1	89.5	200.6	396.3	635.4	324.7	162.7	115.6	114.5	97.7	84.8	2384.1
1947	66.0	62.6	77.3	96.7	539.8	793.2	544.9	267.2	172.5	150.3	116.3	98.1	2985.3
1948	83.9	77.8	80.2	99.5	541.7	1021.4	425.4	220.7	129.2	111.3	93.7	73.3	2958.0
1949	59.5	55.4	69.3	149.4	576.2	739.5	386.5	194.2	127.4	125.2	100.3	73.0	2656.8
1950	55.8	54.8	57.3	93.0	250.5	877.5	694.6	282.0	176.7	164.9	136.9	115.8	2969.7
1951	85.2	76.4	83.4	123.5	515.3	706.0	576.0	326.1	182.0	149.6	114.3	87.3	3027.5
1952	73.0	69.0	75.6	171.4	628.6	835.6	400.9	213.3	125.1	101.2	79.0	72.0	2845.6
1953	73.5	63.2	70.2	83.1	196.7	735.5	455.1	189.7	117.3	101.1	88.7	73.4	2247.4
1954	61.0	56.0	60.6	92.6	494.3	680.0	556.0	224.4	137.5	104.3	89.4	75.6	2636.6
1955	63.8	57.2	71.7	78.0	235.2	607.0	352.9	189.5	115.6	108.3	93.9	85.9	2063.9
1956	85.3	76.7	86.1	130.2	564.6	1096.4	505.6	220.7	129.2	114.7	95.8	80.4	3186.1
1957	66.7	62.1	79.3	78.4	416.2	895.9	490.0	217.8	136.4	118.1	96.0	82.8	2739.6
1958	66.9	61.0	76.2	80.1	471.8	545.5	249.8	148.0	97.6	82.1	84.3	80.6	2043.8
1959	63.3	46.7	62.4	86.1	232.2	955.0	468.5	194.2	124.5	129.8	101.9	91.1	2558.1
1960	80.0	71.7	91.8	114.4	263.5	629.2	244.4	142.8	95.4	94.4	87.7	75.7	1990.9
1961	65.7	60.9	69.4	70.2	259.3	617.1	217.8	120.6	117.0	140.5	120.0	93.9	1952.3
1962	84.0	86.3	91.8	175.7	507.1	906.1	537.9	252.4	144.8	124.2	108.5	96.4	3115.1
1963	60.1	80.0	75.2	83.1	416.0	857.0	412.9	187.9	132.9	114.4	99.9	83.4	2611.7
1964	65.5	55.9	55.0	84.7	362.3	675.6	629.4	253.9	148.7	117.4	102.2	90.9	2842.4
1965	86.3	74.1	81.7	118.9	359.9	1150.1	783.9	323.5	199.9	174.3	129.6	101.8	3592.4
1966	82.0	66.6	81.3	106.6	418.2	530.0	281.5	147.9	110.6	103.6	87.4	77.9	2093.5
1967	75.0	72.0	82.6	84.6	369.7	1122.1	778.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	80.4	82.3	93.1	96.2	278.5	1039.1	606.0	317.0	220.7	183.1	136.0	106.6	3238.9
1969	88.1	92.0	98.5	165.5	673.9	705.1	486.3	213.7	127.5	123.2	104.1	90.0	2969.8
1970	80.5	75.4	83.3	81.5	409.6	1089.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.8	91.4	97.1	110.1	482.5	1213.0	805.2	314.5	191.6	162.3	124.5	99.2	3787.2
1972	88.2	81.8	103.8	117.1	424.0	1185.3	559.4	260.0	199.3	191.8	140.7	110.4	3461.7
1973	100.4	85.5	90.5	85.0	555.0	666.6	347.1	183.0	133.2	126.5	112.9	93.1	2382.8
1974	73.8	68.3	82.8	133.1	373.0	1338.1	736.6	292.8	159.2	137.3	104.5	87.8	3592.2
1975	69.8	63.8	83.3	84.2	203.8	819.3	914.0	308.7	178.0	.2	.8	.6	2726.4
AVERAGE	75.1	63.9	79.3	110.8	401.3	822.6	497.5	222.9	143.3	124.8	102.0	85.4	2733.8
MEDIAN	73.3	65.5	80.2	95.2	409.6	739.5	468.5	213.7	132.9	123.2	101.9	85.9	2656.8
80 PERCENTILE	65.5	55.4	69.3	80.1	263.5	607.0	312.6	158.2	115.6	102.4	88.7	73.9	2093.5
60 PERCENTILE	68.5	62.6	75.6	88.0	362.3	695.7	412.9	189.7	127.4	114.5	96.0	82.8	2552.9
40 PERCENTILE	80.4	72.0	82.6	110.1	424.0	875.6	537.9	229.4	144.8	128.7	104.5	90.9	2958.0
20 PERCENTILE	85.3	77.8	89.5	149.4	515.8	1089.0	606.0	274.2	172.5	149.6	118.5	98.1	3200.5
MAXIMUM	100.4	92.0	103.8	200.6	673.9	1338.1	818.1	326.1	220.7	191.8	140.7	115.8	3787.2
MINIMUM	55.3	46.7	55.0	70.2	196.7	428.2	217.8	115.4	89.9	82.1	76.4	66.6	1952.3

[illegible] OBJECTIVE: [illegible] ENERGY ASSESSMENT 76/10/04.

([illegible] REGIME [illegible] AND BASELINE FROM [illegible])

YELLOWSTONE RIVER AT LIVINGSTON

[illegible]	[illegible]	[illegible]	[illegible]	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	57.[illegible]	151.4	[illegible]	447.5	512.0	150.2	104.4	102.4	76.4	66.6	2246.2
1940	52.7	53.2	71.2	[illegible]	455.5	576.2	244.1	115.4	84.9	95.7	76.3	72.3	2004.6
1941	[illegible]	51.[illegible]	55.[illegible]	75.5	520.[illegible]	423.2	231.0	152.0	160.5	171.7	131.4	110.3	1984.1
1942	57.[illegible]	[illegible]	60.5	137.5	[illegible]	845.7	460.2	165.5	115.2	94.9	88.9	79.1	2450.5
[illegible]	[illegible]	[illegible]	[illegible]	194.6	925.	1191.4	616.1	511.2	171.1	126.7	102.5	85.4	3380.1
[illegible]	[illegible]	[illegible]	71.[illegible]	[illegible]	[illegible]	571.6	590.2	170.4	120.2	114.3	94.3	73.9	2135.7
[illegible]	[illegible]	52.[illegible]	63.7	72.2	255.5	554.9	581.6	265.3	164.3	147.4	115.5	73.1	2552.9
1946	[illegible]	74.1	67.[illegible]	239.5	545.5	653.4	524.7	162.7	115.6	114.5	97.7	84.6	2384.1
1947	[illegible]	[illegible]	77.[illegible]	95.7	554.[illegible]	735.2	344.9	267.2	172.5	150.5	116.5	90.1	2985.3
1948	[illegible]	77.[illegible]	[illegible]	99.5	541.7	1021.4	425.4	220.7	124.2	111.3	93.7	73.3	2458.0
1949	54.5	[illegible]	69.[illegible]	144.4	576.[illegible]	754.5	565.5	194.2	127.4	125.2	100.5	73.0	2636.6
1950	55.5	54.[illegible]	57.5	93.0	280.5	677.5	694.6	282.0	176.7	164.9	136.9	115.8	2909.7
1951	65.2	7[illegible].4	85.4	125.5	515.6	798.0	576.0	326.1	182.0	149.6	114.3	87.3	3027.5
1952	7[illegible]	[illegible]	76.5	171.4	528.5	853.6	400.9	215.5	125.1	101.2	79.0	72.0	2345.6
[illegible]	74.5	[illegible]	70.[illegible]	52.1	175.[illegible]	755.5	455.1	187.7	117.3	101.1	66.7	73.4	2247.4
[illegible]	61.[illegible]	55.[illegible]	60.[illegible]	42.6	494.5	650.0	556.0	229.4	137.5	104.5	89.4	75.6	2656.6
[illegible]	62.5	[illegible]	71.7	76.0	255.[illegible]	607.0	352.9	184.5	115.6	106.3	95.9	65.9	2065.9
1956	65.5	75.7	55.1	150.2	554.5	1090.4	505.6	220.7	129.2	114.7	95.6	80.4	3186.1
1957	66.7	[illegible].1	74.5	75.4	416.2	695.9	490.0	217.5	136.4	116.1	96.0	82.5	2734.5
1958	66.4	61.0	75.2	60.1	471.4	545.5	249.6	146.0	97.6	62.1	64.5	80.6	2045.6
1959	65.[illegible]	40.7	62.4	55.1	252.6	955.0	458.5	144.2	124.5	129.6	101.9	91.1	2553.1
1960	60.0	71.7	91.5	114.4	265.5	629.2	244.4	142.8	95.4	94.4	67.7	75.7	1990.9
1961	65.7	61.4	69.4	70.2	259.5	617.1	217.8	120.6	117.0	140.5	120.0	93.9	1952.5
1962	64.0	66.5	91.5	175.7	507.1	406.1	557.9	252.4	144.5	124.2	109.5	96.4	3115.1
1963	66.1	[illegible]	75.2	35.1	416.9	657.0	412.9	187.9	152.9	114.4	99.9	85.4	2611.7
1964	55.5	55.9	56.9	34.7	552.5	875.6	624.4	255.9	148.7	117.4	102.2	90.9	2642.4
1965	55.5	74.1	81.7	116.9	559.5	1160.1	765.9	325.5	199.9	174.8	129.6	101.6	3592.4
1966	62.0	66.5	81.5	105.6	413.2	550.0	261.5	147.9	110.6	105.6	87.4	77.9	2043.5
1967	75.0	72.0	62.6	64.6	564.7	1122.1	776.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	[illegible]	[illegible]	95.1	45.2	275.5	1059.1	606.0	317.0	220.7	185.1	136.0	106.6	3238.9
1969	60.1	[illegible]	95.5	163.5	675.5	795.1	466.5	215.7	127.5	125.2	104.1	90.0	2964.8
1970	60.5	75.4	55.5	61.5	409.5	1039.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.6	91.4	97.1	110.1	462.6	1215.0	605.2	514.5	191.6	162.3	129.5	99.2	3787.2
1972	96.2	61.[illegible]	103.5	117.1	424.0	1165.5	559.4	260.0	199.3	191.6	140.7	110.4	3461.7
1973	100.4	56.2	40.6	55.0	555.0	666.6	547.1	165.0	155.2	126.5	112.9	95.1	2582.6
1974	75.5	[illegible].5	62.5	155.1	576.[illegible]	1550.1	750.0	242.6	159.2	137.3	104.5	87.6	3592.2
1975	64.5	55.	65.5	54.2	203.6	619.5	914.0	503.7	178.0	.2	.8	.6	2726.4
AVERAGE	75.1	64.9	74.5	110.8	401.3	822.6	447.5	222.9	145.3	124.6	102.0	85.4	2735.8
MEDIAN	75.5	[illegible].5	80.2	95.2	409.5	759.5	466.5	215.7	132.9	125.2	101.9	85.9	2656.6
[illegible] PERCENTILE	[illegible]	[illegible]	67.[illegible]	80.1	255.[illegible]	607.0	312.6	155.2	115.5	102.4	88.7	73.9	2045.5
[illegible] PERCENTILE	[illegible]	[illegible]	75.0	95.0	352.5	545.7	412.9	189.7	127.4	114.5	96.0	82.6	2552.9
[illegible] PERCENTILE	59.4	72.[illegible]	62.5	110.1	424.[illegible]	675.6	557.9	229.4	144.6	126.7	104.5	90.9	2458.0
[illegible] PERCENTILE	[illegible]	77.[illegible]	69.5	149.4	515.9	1039.0	606.0	274.2	172.5	149.5	115.5	98.1	3200.5
MAXIMUM	100.4	96.0	103.5	200.6	675.9	1550.1	916.1	526.1	220.7	191.6	140.7	115.6	3787.2
MINIMUM	[illegible]	45.7	55.0	70.2	195.7	425.2	217.5	115.4	54.9	62.1	76.4	65.6	1952.5

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECOMMEND AND DUE FROM BIGHORN

YELLOWSTONE RIVER AT LIVINGSTON

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	62.5	57.9	57.5	130.4	539.8	497.5	512.6	158.2	104.4	102.4	76.4	66.6	2246.2
1940	56.7	55.2	71.2	94.1	455.6	576.2	244.1	115.4	89.9	95.7	75.3	72.3	2004.6
1941	68.0	51.4	65.2	73.5	328.0	428.2	231.0	152.0	160.5	171.7	131.4	110.3	1984.1
1942	57.2	76.9	80.5	157.6	315.5	596.7	468.2	185.5	115.2	99.9	85.9	79.1	2450.6
1943	64.4	52.1	65.6	199.8	426.4	1101.4	818.1	311.2	171.1	128.7	102.5	85.4	3560.1
1944	74.5	66.6	71.9	73.5	295.0	591.8	580.2	170.4	120.2	114.5	94.5	73.9	2133.7
1945	55.4	52.9	65.7	72.2	256.5	664.9	581.6	265.5	169.3	147.4	118.5	93.1	2552.9
1946	62.3	74.1	84.5	200.6	395.3	635.4	324.7	162.7	113.6	114.5	97.7	84.8	2384.1
1947	66.0	62.5	77.0	96.7	539.3	745.2	544.9	267.2	172.5	150.3	116.3	98.1	2985.3
1948	83.9	77.5	60.2	99.5	541.7	1021.4	425.4	220.7	129.2	111.3	95.7	73.3	2958.0
1949	59.5	56.4	69.5	149.4	576.2	759.5	386.5	194.2	127.4	125.2	100.3	73.0	2656.6
1950	55.3	54.5	57.5	95.0	260.5	677.5	694.6	282.0	176.7	164.9	136.9	115.8	2969.7
1951	65.2	76.4	85.4	125.5	515.8	708.0	570.0	326.1	182.0	149.5	114.3	87.3	3027.5
1952	73.0	69.9	75.6	171.4	625.5	835.6	400.9	213.3	125.1	101.2	79.0	72.0	2645.6
1953	73.5	65.2	70.2	85.1	196.7	755.5	455.1	189.7	117.3	101.1	88.7	73.4	2247.4
1954	61.0	55.0	56.6	92.6	494.3	680.0	556.0	229.4	137.5	104.5	89.4	75.6	2636.6
1955	68.8	57.2	71.7	76.0	235.2	607.0	352.9	189.5	115.6	108.3	93.9	65.9	2063.9
1956	85.3	75.7	85.1	130.2	564.6	1096.4	505.6	220.7	129.2	114.7	95.8	80.4	3186.1
1957	66.7	62.1	79.3	78.4	416.2	895.9	490.0	217.8	136.4	118.1	96.0	82.8	2739.6
1958	66.9	61.0	75.2	80.1	471.8	545.5	249.8	148.0	97.6	82.1	84.3	80.6	2043.8
1959	65.3	43.7	62.4	86.1	232.2	955.0	468.5	194.2	124.5	129.8	101.9	91.1	2556.1
1960	80.0	71.7	91.6	114.4	265.5	624.2	244.4	142.8	95.4	94.4	87.7	75.7	1990.9
1961	65.7	60.9	69.4	70.2	259.3	617.1	217.6	120.6	117.0	140.5	120.0	93.9	1952.3
1962	84.0	86.5	91.8	175.7	507.1	906.1	557.9	252.4	144.8	124.2	106.5	96.4	3115.1
1963	66.1	80.0	73.2	85.1	415.0	857.0	412.9	167.9	132.9	114.4	99.9	83.4	2611.7
1964	65.5	55.9	55.0	84.7	362.5	875.6	524.4	253.9	148.7	117.4	102.2	90.9	2842.4
1965	86.3	74.1	81.7	115.9	559.9	1160.1	763.9	323.5	199.9	174.6	129.6	101.8	3592.4
1966	82.0	66.6	81.5	105.6	418.2	530.0	281.5	147.9	110.6	103.6	87.4	77.9	2093.5
1967	75.0	72.0	82.6	94.6	369.7	1122.1	776.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	80.4	82.5	93.1	95.2	276.5	1039.1	606.0	317.0	220.7	183.1	136.0	106.6	3238.9
1969	83.1	92.0	98.5	105.5	673.9	705.1	488.3	213.7	127.5	123.2	104.1	90.0	2969.8
1970	80.5	75.4	85.5	91.5	409.6	1089.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.3	91.4	97.1	110.1	482.6	1213.0	805.2	314.5	191.6	162.3	129.5	99.2	3787.2
1972	65.2	81.8	105.8	117.1	424.0	1165.3	559.4	260.0	199.3	191.6	140.7	110.4	3461.7
1973	100.4	66.5	90.6	88.0	555.0	666.6	347.1	183.0	133.2	126.5	112.9	93.1	2382.8
1974	73.6	58.5	62.6	133.1	376.0	1338.1	736.6	292.6	159.2	137.3	104.5	87.8	3592.2
1975	69.8	63.8	85.5	84.2	203.8	619.3	914.0	308.7	178.0	.2	.8	.6	2726.4
AVERAGE	75.1	66.9	79.3	110.8	401.3	822.6	497.5	222.9	143.3	124.8	102.0	85.4	2733.6
MEDIAN	75.3	65.5	80.2	95.2	409.5	759.5	468.5	213.7	132.9	123.2	101.9	85.9	2656.8
80 PERCENTILE	65.5	56.4	69.3	80.1	265.5	607.0	312.6	158.2	115.6	102.4	88.7	73.9	2093.5
60 PERCENTILE	68.3	62.0	76.6	85.0	362.3	696.7	412.9	169.7	127.4	114.5	96.0	82.8	2552.9
40 PERCENTILE	80.4	72.0	82.5	110.1	424.0	875.6	537.9	229.4	144.8	128.7	104.5	90.9	2958.0
20 PERCENTILE	85.8	77.6	89.5	149.4	515.8	1089.0	606.0	274.2	172.5	149.6	118.5	98.1	3200.5
MAXIMUM	100.4	92.0	105.8	200.6	673.9	1338.1	818.1	326.1	220.7	191.8	140.7	115.8	3787.2
MINIMUM	55.3	43.7	55.0	70.2	195.7	423.2	217.6	115.4	89.9	62.1	76.4	66.6	1952.3

2000 RECLAIMED AND BASELINE FROM YELLO

YELLOWSTONE RIVER AT LIVINGSTON

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	57.5	51.9	57.5	154.4	553.	447.5	512.5	158.6	104.4	102.4	76.4	65.6	2246.2
1940	51.7	55.2	71.2	94.1	455.5	575.2	244.1	115.4	54.9	95.7	78.5	72.3	2004.6
1941	57.0	51.1	55.2	75.5	326.1	426.2	251.0	152.0	165.5	171.7	151.4	110.5	1984.1
1942	37.2	7[illegible].0	60.8	137.6	513.5	545.7	465.[illegible]	165.	117.2	94.9	58.9	79.1	2450.6
1943	59.9	[illegible]	65.5	149.0	425.1	1101.4	610.1	311.2	171.1	120.7	102.5	85.4	3560.1
1944	7[illegible].5	[illegible]	71.1	75.5	215.1	591.8	509.2	170.4	120.2	114.5	94.5	73.9	2133.7
1945	55.4	52.9	65.7	7[illegible].2	255.5	554.9	551.6	265.5	169.3	147.4	116.5	93.1	2552.9
1946	55.5	7[illegible]	84.5	200.6	390.3	655.4	524.7	162.7	115.6	114.5	97.7	84.6	2584.1
1947	60.0	52.[illegible]	77.5	95.7	554.5	745.2	544.9	267.2	172.5	150.5	115.5	98.1	2985.5
1948	55.9	71.[illegible]	91.2	99.5	541.7	1121.4	425.4	221.7	124.2	111.5	95.7	75.5	2950.0
1949	59.5	55.4	59.5	149.4	575.2	759.5	556.5	194.2	127.4	125.2	100.3	75.0	2556.6
1950	55.[illegible]	51.[illegible]	57.5	95.0	200.5	677.5	694.5	282.0	176.7	154.9	136.9	115.6	2969.7
1951	85.2	[illegible]5.4	65.4	125.5	515.4	705.0	576.0	326.1	182.0	149.6	114.3	87.5	3027.5
1952	75.0	59.1	75.6	171.4	625.5	655.6	400.9	215.5	125.1	101.2	74.0	72.0	2645.6
1953	75.5	[illegible]	70.2	55.1	145.7	755.5	455.1	169.7	117.5	101.1	88.7	73.4	2247.4
1954	51.0	55.7	60.5	42.6	494.5	650.0	550.0	224.4	137.5	104.3	69.4	75.6	2656.6
1955	65.5	57.2	71.7	70.0	257.2	597.0	552.9	169.5	115.6	106.5	95.9	65.9	2063.9
1956	85.5	76.7	55.1	130.2	564.5	1045.4	505.6	220.7	129.2	114.7	95.8	80.4	3186.1
1957	55.7	62.1	74.5	75.4	416.2	645.9	490.0	217.6	136.4	116.1	96.0	82.6	2739.6
1958	66.9	61.	76.2	60.1	471.6	545.5	244.8	143.0	97.6	82.1	64.3	80.6	2045.6
1959	65.	40.7	62.4	55.1	232.2	455.0	460.5	144.2	124.5	124.6	101.9	91.1	2556.1
1960	80.0	71.7	91.5	114.4	263.5	629.2	244.4	142.5	95.4	94.4	67.7	75.7	1990.9
1961	65.7	60.9	59.4	71.2	254.5	517.1	217.8	120.6	117.0	140.5	120.0	93.9	1952.5
1962	64.0	55.5	91.8	175.7	507.1	906.1	537.9	252.4	144.8	124.2	108.5	96.4	3115.1
1963	55.1	80.0	76.2	55.1	416.0	657.0	412.9	187.9	152.9	114.4	99.9	85.4	2611.7
1964	65.5	55.9	55.0	84.7	502.5	675.6	629.4	255.9	140.7	117.4	102.2	90.9	2642.4
1965	55.5	74.1	81.7	115.9	359.4	1160.1	785.9	323.5	199.9	174.0	129.6	101.8	3592.4
1966	82.[illegible]	65.6	81.5	106.6	418.2	550.0	281.5	147.9	110.6	103.6	87.4	77.9	2095.5
1967	75.0	72.0	62.5	64.5	509.7	1122.1	778.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	80.4	62.5	95.1	96.2	275.5	1054.1	606.0	317.0	220.7	183.1	136.0	105.6	3236.9
1969	88.1	92.0	93.5	165.5	675.4	705.1	486.5	213.7	127.5	123.2	104.1	90.0	2969.8
1970	80.5	75.4	85.5	81.5	409.6	1059.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.8	91.4	97.1	110.1	482.5	1215.0	805.2	314.5	191.6	162.5	129.5	99.2	3787.2
1972	88.2	81.6	103.5	117.1	424.7	1185.3	559.4	260.0	199.3	191.8	140.7	110.4	3461.7
1973	100.4	45.5	90.5	55.0	555.0	565.6	347.1	185.0	135.2	126.5	112.9	95.1	2582.6
1974	75.8	55.5	52.5	155.1	575.0	1335.1	756.6	292.6	159.2	137.5	104.5	87.6	3592.2
1975	59.5	65.5	85.5	84.2	205.4	614.5	914.0	505.7	178.0	.2	.8	.6	2720.4
AVERAGE	75.1	62.9	74.5	110.8	401.5	822.6	497.5	222.9	143.3	124.6	102.0	85.4	2735.8
MEDIAN	72.5	61.	70.2	95.2	409.6	739.5	468.5	213.7	132.9	123.2	101.9	85.9	2656.6
80 PERCENTILE	[illegible].5	55.4	59.5	55.1	265.5	607.0	312.6	156.2	115.6	102.4	88.7	73.9	2095.5
60 PERCENTILE	65.5	57.5	75.6	95.0	502.5	545.7	412.9	169.7	127.4	114.5	96.0	82.8	2552.9
40 PERCENTILE	80.4	72.0	82.5	110.1	424.9	975.6	557.9	224.4	144.5	125.7	104.5	90.9	2950.0
20 PERCENTILE	85.5	77.5	84.5	149.4	515.2	1064.0	606.0	274.2	172.5	149.6	115.5	98.1	3200.5
MAXIMUM	100.4	92.0	103.5	200.6	675.4	1335.1	818.1	326.1	220.7	191.8	140.7	115.6	3787.2
MINIMUM	35.8	40.7	55.0	70.2	195.7	426.2	217.8	115.4	89.9	82.1	76.4	66.6	1952.5

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECOMMENDED AND DUE FROM YELLOWSTON

YELLOWSTONE RIVER AT LIVINGSTON

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	62.5	57.9	67.8	150.4	539.8	497.5	312.6	158.2	104.4	102.4	76.4	66.6	2246.2
1940	55.7	53.2	71.2	94.1	455.6	575.2	244.1	115.4	89.9	95.7	78.3	72.3	2004.5
1941	63.0	51.4	65.2	75.5	328.0	425.2	231.0	152.0	180.5	171.7	151.4	110.3	1984.1
1942	87.2	76.0	80.5	157.6	315.5	695.7	466.2	165.5	115.2	99.9	88.9	79.1	2450.6
1943	69.9	62.1	55.5	199.8	426.4	1101.4	618.1	311.2	171.1	[illegible]	102.5	85.4	3560.1
1944	74.5	53.0	71.9	70.3	295.0	541.8	380.2	170.4	120.2	114.5	94.5	73.9	2133.7
1945	55.4	52.9	65.7	72.2	250.5	664.9	581.6	265.5	169.3	147.4	118.5	93.1	2552.9
1946	86.3	74.1	69.5	200.6	595.5	635.4	524.7	162.7	115.6	114.5	97.7	84.6	2384.1
1947	66.0	62.6	77.8	90.7	534.8	793.2	544.9	267.2	172.5	150.3	116.3	96.1	2985.3
1948	55.9	77.6	80.2	99.5	541.7	1021.4	425.4	220.7	129.2	111.3	95.7	75.3	2958.0
1949	54.5	56.4	69.3	144.4	576.2	739.5	566.5	194.2	127.4	125.2	100.3	73.0	2656.8
1950	55.8	54.6	57.3	93.0	260.5	877.5	694.6	282.0	176.7	164.9	136.9	115.8	2969.7
1951	85.2	70.4	55.4	123.5	513.6	708.0	576.0	326.1	182.0	149.6	114.3	67.3	3027.5
1952	73.0	69.0	70.6	171.4	620.6	835.6	400.9	213.3	125.1	101.2	79.0	72.0	2845.6
1953	73.5	65.2	70.2	83.1	196.7	735.5	455.1	189.7	117.3	101.1	88.7	73.4	2247.4
1954	81.0	56.0	60.6	92.6	494.3	680.0	556.0	229.4	137.5	104.3	89.4	75.6	2636.6
1955	65.8	57.2	71.7	76.0	235.2	607.0	352.9	169.5	115.6	108.3	93.9	85.9	2063.9
1956	85.6	70.7	86.1	130.2	564.6	1096.4	505.6	220.7	129.2	114.7	95.8	80.4	3186.1
1957	55.7	62.1	79.3	76.4	416.2	895.9	490.0	217.8	136.4	118.1	96.0	82.8	2739.6
1958	56.9	51.0	75.2	80.1	471.8	545.5	249.8	148.0	97.6	82.1	84.3	80.6	2043.8
1959	53.8	46.7	62.4	86.1	232.2	955.0	468.5	194.2	124.5	129.8	101.9	91.1	2558.1
1960	60.0	71.7	91.8	114.4	263.5	629.2	244.4	142.6	95.4	94.4	87.7	75.7	1990.9
1961	65.7	60.9	69.4	70.2	259.3	617.1	217.8	120.6	117.0	140.5	120.0	93.9	1952.3
1962	84.0	86.3	91.8	175.7	507.1	905.1	537.9	252.4	144.8	124.2	106.5	96.4	3115.1
1963	66.1	80.9	78.2	83.1	416.0	857.0	412.9	187.9	132.9	114.4	99.9	83.4	2611.7
1964	55.5	55.9	56.0	84.7	362.3	875.6	629.4	253.9	148.7	117.4	102.2	90.9	2842.4
1965	86.3	74.1	81.7	116.9	359.9	1160.1	783.9	323.5	199.9	174.8	129.6	101.8	3592.4
1966	82.0	66.6	81.3	106.6	418.2	530.0	281.5	147.9	110.6	103.6	87.4	77.9	2093.5
1967	75.0	72.0	82.6	84.6	359.7	1122.1	778.5	274.2	151.7	141.7	114.1	93.1	3359.2
1968	60.4	82.5	95.1	95.2	278.5	1039.1	606.0	317.0	220.7	183.1	136.0	106.6	3238.9
1969	65.1	92.0	98.5	165.5	673.9	705.1	488.3	213.7	127.5	123.2	104.1	90.0	2969.8
1970	80.5	75.4	85.3	81.5	409.6	1089.0	599.9	241.1	173.4	147.1	117.7	102.1	3200.5
1971	90.8	91.4	97.1	110.1	482.6	1213.0	805.2	314.5	191.6	162.3	129.5	99.2	3787.2
1972	58.2	61.0	103.6	117.1	424.0	1185.3	559.4	260.0	199.3	191.8	140.7	110.4	3461.7
1973	100.4	80.3	90.8	85.0	555.0	656.6	347.1	165.0	133.2	126.5	112.9	93.1	2382.8
1974	73.6	66.5	82.5	133.1	378.0	1338.1	736.6	292.8	159.2	137.3	104.5	87.8	3592.2
1975	69.8	63.6	85.3	84.2	203.8	819.3	914.0	308.7	178.0	.2	.8	.6	2726.4
AVERAGE	75.1	60.9	79.3	110.8	401.3	822.6	497.5	222.9	143.3	124.6	102.0	85.4	2733.8
MEDIAN	73.8	60.5	80.2	96.2	409.5	734.5	468.5	213.7	132.9	123.2	101.9	85.9	2656.8
80 PERCENTILE	65.5	56.4	69.3	80.1	263.5	607.0	312.6	158.2	115.6	102.4	88.7	73.9	2093.5
60 PERCENTILE	63.5	62.6	75.6	88.0	362.3	696.7	412.9	189.7	127.4	114.5	96.0	82.8	2552.9
40 PERCENTILE	80.4	72.0	82.6	110.1	424.0	875.6	537.9	229.4	144.6	126.7	104.5	90.9	2958.0
20 PERCENTILE	85.5	77.6	89.5	144.4	515.8	1089.0	606.0	274.2	172.5	149.6	118.5	98.1	3200.5
MAXIMUM	100.4	92.0	103.8	200.6	673.9	1338.1	810.1	326.1	220.7	191.8	140.7	115.8	3787.2
MINIMUM	55.8	46.7	55.0	70.2	145.7	425.2	217.8	115.4	89.9	82.1	76.4	66.6	1952.3

CLARKS FORK OF YELLOWSTONE AT EDGAR

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL 3 OPERATION STUDY
2000 RECOMMEND DEVELOPMENT MINUS GASIF

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	24.1	1[illegible].4	25.7	55.4	150.1	151.1	76.4	11.9	9.3	22.3	21.4	16.6	585.7
1940	14.3	17.7	20.2	26.0	142.1	134.5	31.0	0.0	13.2	34.4	27.0	26.3	537.2
1941	21.1	17.3	17.1	22.0	117.0	165.9	46.1	30.2	77.2	62.1	39.1	30.8	648.9
1942	24.0	13.3	23.7	41.8	95.4	191.1	126.4	13.5	17.6	30.7	33.2	31.1	649.6
1943	25.9	22.8	34.5	62.7	124.3	322.4	276.6	69.9	39.7	32.4	33.4	27.8	1092.7
1944	22.5	22.5	20.6	19.4	100.5	235.0	152.4	19.3	29.3	30.4	23.5	24.2	682.9
1945	25.3	19.2	23.2	20.4	71.4	239.6	211.4	55.8	29.8	35.4	34.2	27.8	792.1
1946	25.7	21.3	25.2	35.2	92.3	208.1	96.5	18.1	21.0	35.1	30.9	27.5	659.2
1947	20.7	20.6	33.3	26.2	165.7	195.4	137.7	35.1	19.5	35.3	33.1	28.4	752.0
1948	24.5	27.4	25.2	25.7	154.1	293.1	75.3	21.7	14.5	22.4	25.4	21.8	729.2
1949	17.7	17.0	20.2	36.0	158.5	234.9	79.8	10.0	21.8	35.5	30.5	30.4	698.5
1950	23.5	21.5	23.6	27.5	67.5	256.8	222.6	53.3	41.3	55.1	44.8	37.5	885.5
1951	29.5	29.0	31.2	35.5	160.2	199.1	212.3	84.3	37.3	45.6	36.1	26.9	927.1
1952	28.7	28.1	25.6	49.6	145.5	232.5	85.5	40.8	18.0	23.0	26.8	29.7	735.1
1953	29.1	19.9	21.0	24.7	49.2	243.6	125.7	30.0	14.8	18.7	28.7	28.6	634.2
1954	25.3	23.4	22.9	25.6	163.8	179.6	165.4	24.5	17.3	24.2	26.0	27.5	728.5
1955	26.3	23.1	25.5	27.1	64.3	193.2	76.5	13.0	8.3	18.4	27.5	29.4	532.6
1956	22.1	22.5	32.2	33.1	179.5	344.1	112.8	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.5	25.8	24.1	150.9	346.1	161.0	29.3	33.2	36.7	37.0	31.3	924.6
1958	26.9	21.5	21.6	23.5	187.0	199.9	41.4	22.9	19.5	20.5	30.7	31.2	646.4
1959	24.5	21.7	25.0	29.7	52.5	346.5	136.5	27.7	19.1	41.4	36.3	26.7	789.6
1960	20.1	19.3	26.9	29.6	50.5	216.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	5.6	83.5	238.4	26.4	3.0	50.8	49.9	35.8	27.1	583.1
1962	20.2	22.7	22.5	52.4	105.0	287.1	117.0	45.5	31.0	33.3	30.8	30.5	798.0
1963	21.4	33.0	23.0	23.0	137.4	285.2	87.9	9.2	31.9	24.7	29.3	24.6	732.6
1964	19.2	16.4	19.9	29.2	115.5	260.3	174.3	19.6	13.0	21.8	31.9	29.1	757.2
1965	27.9	23.9	20.1	34.6	91.9	339.2	199.6	66.6	44.0	45.3	34.9	31.0	959.0
1966	24.5	19.2	23.5	24.1	111.4	167.3	57.6	14.8	20.3	28.4	29.7	27.2	548.1
1967	26.7	21.6	22.1	20.4	109.3	376.5	232.0	41.1	23.9	42.4	37.0	26.9	981.9
1968	26.4	24.5	26.2	21.2	43.5	279.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	22.2	22.5	39.7	137.1	193.2	91.1	11.8	12.1	30.1	30.9	28.0	643.4
1970	24.3	22.7	22.0	20.2	136.0	306.1	115.9	17.2	34.5	37.9	31.6	28.3	796.7
1971	24.3	25.3	25.3	28.8	125.1	359.4	178.4	54.6	52.2	51.0	38.3	31.2	993.9
1972	29.5	26.8	37.2	27.6	111.0	378.3	134.4	67.7	51.3	58.2	41.0	29.6	994.6
1973	25.4	23.9	24.8	32.9	100.2	187.0	64.0	21.1	47.5	36.3	37.3	25.5	650.9
1974	30.6	22.3	25.2	36.4	97.1	393.8	180.2	53.9	31.9	29.9	34.3	27.9	965.7
1975	16.5	1[illegible]	32.2	30.0	96.5	255.5	334.5	61.2	26.8	.0	1.0	.8	876.9
AVERAGE	24.1	22.3	25.1	31.4	115.2	256.9	129.7	33.0	28.2	33.1	31.6	27.4	758.1
MEDIAN	24.3	21.8	23.7	28.2	111.4	238.4	117.0	24.5	21.9	33.1	31.9	28.0	732.6
80 PERCENTILE	21.1	19.2	21.0	22.0	71.4	191.1	73.3	13.0	14.5	22.3	27.6	26.2	634.2
60 PERCENTILE	23.9	21.3	23.0	26.0	100.5	216.5	91.1	19.6	19.5	30.1	30.8	27.5	682.9
40 PERCENTILE	24.5	22.7	25.2	29.6	125.1	255.8	152.4	30.2	31.0	35.3	33.2	28.7	757.2
20 PERCENTILE	27.9	25.5	25.7	36.1	154.1	339.2	179.3	53.9	41.3	42.4	37.0	30.5	924.6
MAXIMUM	30.6	33.0	37.2	62.7	187.0	393.6	276.6	84.3	77.2	62.1	44.8	37.5	1092.7
MINIMUM	14.3	16.4	17.1	5.6	43.5	161.1	26.4	0.0	5.7	18.4	21.4	16.6	493.0

2000 RECOMEND AND BASELINE DEVELOPMEN

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	24.1	16.4	26.7	35.4	160.1	161.1	76.4	11.9	9.3	22.3	21.4	18.6	583.7
1940	14.3	17.7	20.2	26.0	142.1	184.5	31.0	0.0	13.2	34.4	27.0	26.8	537.2
1941	21.1	17.3	17.1	22.0	117.0	166.9	48.1	30.2	77.2	[illegible].1	39.1	30.8	648.9
1942	24.0	18.6	23.7	41.8	95.9	191.1	128.4	13.5	17.8	[illegible].7	33.2	31.1	649.8
1943	23.9	22.8	34.6	82.7	124.3	322.4	278.8	69.9	39.7	32.4	33.4	27.8	1092.7
1944	22.8	20.5	20.6	19.4	100.5	235.0	132.4	19.3	29.3	30.4	28.5	24.2	682.9
1945	23.9	19.2	23.2	20.4	71.4	239.6	211.4	55.8	29.8	35.4	34.2	27.8	792.1
1946	28.7	21.8	25.2	56.2	92.3	208.1	96.3	18.1	21.0	33.1	30.9	27.5	659.2
1947	20.7	20.6	33.3	28.2	163.7	196.4	137.7	35.1	19.5	35.3	33.1	28.4	752.0
1948	24.6	27.4	25.2	25.7	154.1	293.1	73.3	21.7	14.5	22.4	25.4	21.8	729.2
1949	17.7	17.0	28.2	36.0	158.6	234.9	79.8	10.0	21.8	33.6	30.5	30.4	698.5
1950	23.6	21.6	23.6	27.5	67.6	266.8	222.8	53.3	41.3	55.1	44.8	37.5	885.5
1951	29.6	29.0	31.2	33.5	160.2	199.1	212.3	84.3	37.3	45.6	38.1	26.9	927.1
1952	28.7	28.1	25.6	49.6	146.8	232.5	85.5	40.8	18.0	23.0	26.8	29.7	735.1
1953	29.1	19.9	21.0	24.7	49.2	243.8	125.7	30.0	14.8	18.7	28.7	28.6	634.2
1954	25.3	23.4	22.9	28.6	163.8	179.6	165.4	24.5	17.3	24.2	26.0	27.5	728.5
1955	26.3	23.1	25.5	27.1	64.3	193.2	76.5	13.0	8.3	18.4	27.5	29.4	532.6
1956	22.1	22.5	32.2	38.1	179.6	344.1	112.8	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.5	25.8	24.1	150.9	346.1	161.0	29.3	33.2	36.7	37.0	31.3	924.6
1958	26.9	21.3	21.6	23.5	187.0	199.9	41.4	22.9	19.5	20.5	30.7	31.2	646.4
1959	24.5	21.7	25.0	29.7	52.5	346.5	136.5	27.7	19.1	41.4	36.3	28.7	789.6
1960	20.1	14.3	28.9	29.6	58.5	216.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	6.6	83.6	238.4	26.4	3.0	50.8	49.9	35.8	27.1	583.1
1962	20.2	22.7	22.5	52.4	105.0	287.1	117.0	45.5	31.0	33.3	30.8	30.5	798.0
1963	21.4	33.0	23.0	25.0	137.4	285.2	87.9	9.2	31.9	24.7	29.3	24.6	732.6
1964	19.2	18.4	19.9	29.2	115.5	260.3	179.3	19.6	13.0	21.8	31.9	29.1	757.2
1965	27.9	23.9	20.1	34.6	91.9	339.2	199.6	66.6	44.0	45.3	34.9	31.0	959.0
1966	24.6	19.2	23.5	24.1	111.4	167.3	57.6	14.8	20.3	28.4	29.7	27.2	548.1
1967	26.7	21.6	22.1	20.4	109.3	376.5	232.0	41.1	23.9	42.4	37.0	28.9	981.9
1968	26.4	24.3	26.2	21.2	43.6	279.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	22.2	22.5	39.7	137.1	193.2	91.1	11.8	12.1	30.1	30.9	28.0	643.4
1970	24.3	22.7	22.0	20.2	136.0	306.1	115.9	17.2	34.5	37.9	31.6	28.3	796.7
1971	24.3	25.3	25.3	28.8	125.1	359.4	178.4	54.6	52.2	51.0	38.3	31.2	993.9
1972	29.5	28.8	37.2	27.6	111.0	378.3	134.4	67.7	51.3	58.2	41.0	29.6	994.6
1973	28.4	25.9	24.8	32.9	100.2	187.0	84.0	21.1	47.5	36.3	37.3	25.5	650.9
1974	30.8	22.3	25.2	38.4	97.1	393.8	180.2	53.9	31.9	29.9	34.3	27.9	965.7
1975	18.5	19.8	32.2	30.0	98.6	253.5	334.5	61.2	26.8	.0	1.0	.8	876.9
AVERAGE	24.1	22.3	25.1	31.4	115.2	256.9	129.7	33.0	28.2	33.1	31.6	27.4	758.1
MEDIAN	24.3	21.8	23.7	28.2	111.4	238.4	117.0	24.5	21.9	33.1	31.9	28.0	732.6
80 PERCENTILE	21.1	19.2	21.0	22.0	71.4	191.1	73.3	13.0	14.5	22.3	27.6	26.2	634.2
60 PERCENTILE	23.9	21.3	23.0	26.0	100.5	216.5	91.1	19.6	19.5	30.1	30.8	27.5	682.9
40 PERCENTILE	24.6	22.7	25.2	29.6	125.1	266.8	132.4	30.2	31.0	35.3	33.2	28.7	757.2
20 PERCENTILE	27.9	25.3	26.7	38.1	154.1	339.2	179.3	53.9	41.3	42.4	37.0	30.5	924.6
MAXIMUM	30.8	33.0	37.2	82.7	187.0	393.8	278.8	84.3	77.2	62.1	44.8	37.5	1092.7
MINIMUM	14.3	16.4	17.1	6.6	43.6	161.1	26.4	0.0	5.7	18.4	21.4	18.6	493.0

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	24.1	16.4	25.7	35.4	150.1	161.1	76.4	11.9	9.3	22.3	21.4	18.6	583.7
1940	14.3	17.7	20.2	26.0	142.1	184.5	31.0	0.0	13.2	34.4	27.0	26.8	537.2
1941	21.1	17.3	17.1	22.0	117.0	166.9	48.1	30.2	77.2	62.1	39.1	30.8	648.9
1942	24.0	15.6	23.7	41.8	95.9	191.1	128.4	13.5	17.8	30.7	33.2	31.1	649.8
1943	23.9	22.8	34.6	82.7	124.3	32[illegible]	27[illegible]	69.9	39.7	32.4	33.4	27.8	1[illegible].7
1944	22.8	20.5	20.6	19.4	100.5	235.0	152.4	19.3	29.3	30.4	28.5	24.2	6[illegible].9
1945	23.9	19.2	23.2	20.4	71.4	239.6	211.4	55.8	29.8	35.4	34.2	27.8	792.1
1946	28.7	21.0	25.2	56.2	92.3	206.1	96.3	18.1	21.0	33.1	30.9	27.5	659.2
1947	20.7	20.6	33.3	26.2	163.7	196.4	137.7	35.1	19.5	35.3	33.1	28.4	752.0
1948	24.5	27.4	25.2	25.7	154.1	293.1	73.3	21.7	14.5	22.4	25.4	21.8	729.2
1949	17.7	17.0	23.2	35.0	158.5	234.9	79.8	10.0	21.8	33.6	30.5	30.4	698.5
1950	23.6	21.6	23.6	27.5	67.6	265.8	222.8	53.3	41.3	55.1	44.8	37.5	885.5
1951	29.5	29.0	31.2	33.5	160.2	199.1	212.3	84.3	37.3	45.6	38.1	26.9	927.1
1952	26.7	26.1	25.6	49.6	146.8	232.5	85.5	40.8	16.0	23.0	26.8	29.7	735.1
1953	29.1	19.9	21.0	24.7	49.2	243.6	125.7	30.0	14.8	16.7	28.7	28.6	634.2
1954	25.3	23.4	22.9	28.6	163.8	179.6	165.4	24.5	17.3	24.2	26.0	27.5	728.5
1955	26.3	23.1	25.5	27.1	64.3	193.2	76.5	13.0	8.3	18.4	27.5	29.4	532.6
1956	22.1	22.5	32.2	36.1	179.6	344.1	112.8	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.5	25.8	24.1	150.9	346.1	161.0	29.3	33.2	36.7	37.0	31.3	924.6
1958	26.9	21.3	21.5	23.5	187.0	199.9	41.4	22.9	19.5	20.5	30.7	31.2	646.4
1959	24.5	21.7	25.0	29.7	52.5	346.5	136.5	27.7	19.1	41.4	36.3	26.7	789.6
1960	20.1	19.3	28.9	29.6	58.5	216.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	6.6	83.6	238.4	26.4	3.0	50.8	49.9	35.6	27.1	583.1
1962	20.2	22.7	22.5	52.4	105.0	287.1	117.0	45.5	31.0	33.3	30.8	30.5	798.0
1963	21.4	33.0	23.0	25.0	137.4	285.2	67.9	9.2	31.9	24.7	29.3	24.6	732.6
1964	19.2	18.4	19.9	29.2	115.5	260.3	179.3	19.6	13.0	21.8	31.9	29.1	757.2
1965	27.9	23.9	20.1	34.6	91.9	339.2	199.6	66.6	44.0	45.3	34.9	31.0	959.0
1966	24.6	19.2	23.5	24.1	111.4	167.3	57.6	14.8	20.3	28.4	29.7	27.2	548.1
1967	26.7	21.6	22.1	20.4	109.3	378.5	232.0	41.1	23.9	42.4	37.0	28.9	981.9
1968	26.4	24.5	26.2	21.2	43.6	279.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	22.2	22.5	39.7	137.1	193.2	91.1	11.8	12.1	30.1	30.9	28.0	643.4
1970	24.3	22.7	22.0	20.2	135.0	306.1	115.9	17.2	34.5	37.9	31.6	28.3	796.7
1971	24.3	25.3	25.3	28.6	125.1	359.4	178.4	54.6	52.2	51.0	38.3	31.2	993.9
1972	29.5	28.6	37.2	27.6	111.0	378.3	134.4	67.7	51.3	58.2	41.0	29.6	994.6
1973	28.4	25.9	24.8	32.9	100.2	187.0	84.0	21.1	47.5	36.3	37.3	25.5	650.9
1974	30.8	22.3	25.2	36.4	97.1	393.8	180.2	53.9	31.9	29.9	34.3	27.9	965.7
1975	18.5	19.8	32.2	30.0	98.6	253.5	334.5	61.2	26.8	.0	1.0	.6	876.9
AVERAGE	24.1	22.3	25.1	31.4	115.2	255.9	129.7	33.0	28.2	33.1	31.6	27.4	758.1
MEDIAN	24.3	21.6	23.7	25.2	111.4	235.4	117.0	24.5	21.9	33.1	31.9	26.0	732.6
80 PERCENTILE	21.1	19.2	21.0	22.0	71.4	191.1	73.3	13.0	14.5	22.3	27.6	26.2	634.2
60 PERCENTILE	23.9	21.3	23.0	26.0	100.5	216.5	91.1	19.6	19.5	30.1	30.8	27.5	682.9
40 PERCENTILE	24.5	22.7	25.2	29.6	125.1	266.8	132.4	30.2	31.0	35.3	33.2	28.7	757.2
20 PERCENTILE	27.9	25.3	26.7	38.1	154.1	339.2	179.3	53.9	41.3	42.4	37.0	30.5	924.6
MAXIMUM	30.3	33.0	37.2	82.7	187.0	393.8	278.8	84.3	77.2	62.1	44.8	37.5	1092.7
MINIMUM	14.3	16.4	17.1	6.6	43.6	161.1	26.4	0.0	5.7	16.4	21.4	18.6	493.0

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	24.1	[illegible]	20.[illegible]	33.4	1[illegible].1	101.1	79.4	11.9	9.3	22.3	21.4	13.6	533.7
1940	14.5	17.7	20.2	25.0	102.1	184.5	51.0	0.0	13.2	34.4	27.0	26.8	537.2
1941	21.1	17.5	17.1	22.0	117.0	155.9	40.1	30.2	77.2	62.1	39.1	30.6	646.9
1942	24.0	13.6	25.7	41.6	93.4	191.1	126.4	13.5	17.6	30.7	33.2	31.1	649.6
1943	25.4	[illegible]	3[illegible]	[illegible].7	1[illegible]	222.4	278.5	69.9	39.7	42.4	33.9	27.6	1092.7
1944	22.[illegible]	[illegible]	20.5	19.4	100.5	235.0	152.4	19.3	29.5	30.[illegible]	20.5	24.2	662.9
1945	25.9	19.[illegible]	25.2	20.4	71.4	234.6	211.4	53.0	29.0	35.4	34.2	27.6	792.1
1946	20.7	21.6	25.2	35.2	92.5	206.1	90.5	16.1	21.0	33.1	30.9	27.5	654.2
1947	[illegible]	[illegible]	33.5	20.2	163.7	193.4	137.7	53.1	19.5	35.3	33.1	26.4	752.0
1948	[illegible]	27.[illegible]	25.2	25.7	134.1	293.1	75.3	21.7	14.5	22.4	23.4	21.6	729.2
1949	[illegible]	17.[illegible]	[illegible]	33.0	135.5	254.9	79.2	10.0	21.0	33.0	30.5	30.4	646.5
1950	25.5	21.	23.5	27.5	67.5	255.6	222.6	53.5	41.3	55.1	44.6	37.5	885.5
1951	[illegible]	24.0	31.2	33.5	160.2	199.1	212.3	64.5	37.3	45.5	36.1	20.9	927.1
1952	22.7	24.1	23.3	47.6	145.4	232.5	65.5	40.6	16.0	25.[illegible]	26.0	29.7	735.1
1953	24.1	1[illegible]	21.[illegible]	34.7	44.[illegible]	245.5	125.7	50.0	14.6	16.7	26.7	26.6	634.2
1954	23.5	25.4	2[illegible].9	25.5	165.[illegible]	174.5	155.4	24.5	17.3	24.2	25.0	27.5	720.5
1955	20.5	25.1	25.5	27.1	64.5	195.2	76.5	15.0	8.5	19.4	27.5	29.4	532.6
1956	22.1	22.5	32.2	33.1	174.5	344.1	112.6	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.5	25.6	24.1	150.4	345.1	151.9	29.3	33.2	36.7	37.0	31.3	924.6
1958	[illegible].4	21.5	21.5	25.5	187.[illegible]	194.9	41.4	22.9	19.5	20.5	30.7	31.2	646.4
1959	24.5	21.7	[illegible]	24.7	52.5	346.5	136.5	27.7	19.1	41.4	36.3	28.7	769.5
1960	20.1	19.3	25.9	29.6	55.5	216.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	6.6	55.5	238.4	26.4	5.0	50.6	49.9	55.6	27.1	583.1
1962	[illegible]	2[illegible].7	22.5	32.4	105.[illegible]	237.1	117.0	45.5	51.0	35.5	30.6	30.5	798.0
1963	21.4	[illegible]	25.[illegible]	25.0	157.[illegible]	255.2	67.9	9.2	31.9	24.7	24.5	24.5	732.6
1964	19.2	[illegible]	19.9	29.2	115.5	290.5	179.5	19.6	13.0	21.6	31.9	24.1	757.2
1965	21.9	[illegible]	20.1	34.6	91.[illegible]	339.2	199.6	66.6	44.0	45.3	34.9	31.0	959.0
1966	24.5	19.[illegible]	25.5	24.1	111.4	157.3	57.6	14.6	20.3	25.4	29.7	27.2	546.1
1967	[illegible].7	21.[illegible]	2[illegible].1	20.4	104.[illegible]	375.5	232.0	41.1	23.9	42.4	37.0	26.9	981.9
1968	22.4	[illegible]	25.2	21.2	43.[illegible]	279.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	[illegible]	22.5	39.7	137.1	193.2	91.1	11.6	12.1	30.[illegible]	30.9	26.0	645.4
1970	24.5	2[illegible].7	22.[illegible]	20.2	150.[illegible]	305.1	115.9	17.2	34.5	37.9	31.6	26.5	796.7
1971	24.5	25.5	23.5	25.6	125.1	359.4	173.4	54.6	52.2	51.0	36.3	31.2	993.9
1972	24.5	[illegible]	37.2	27.6	111.0	376.5	134.4	67.7	51.3	56.2	41.0	29.6	994.6
1973	25.[illegible]	[illegible]	24.[illegible]	32.9	100.[illegible]	137.0	64.0	21.1	47.5	56.3	37.5	25.5	650.9
1974	[illegible]	[illegible]	25.2	35.4	97.1	393.5	180.2	33.9	31.9	29.9	34.5	27.9	965.7
1975	16.5	17.[illegible]	32.2	30.0	93.6	235.5	354.5	61.2	26.6	.0	1.0	.8	876.9
AVERAGE	24.1	[illegible]	25.1	31.4	115.[illegible]	255.9	129.7	33.0	28.2	35.1	31.5	27.4	756.1
MEDIAN	24.5	[illegible]	25.7	26.2	111.[illegible]	258.4	117.0	24.5	21.9	33.1	31.9	28.0	732.6
80 PERCENTILE	[illegible]	[illegible]	21.	[illegible]	71.1	141.1	75.5	13.0	14.5	22.5	27.5	26.2	634.2
60 PERCENTILE	23.4	21.5	25.	25.0	100.5	215.5	91.1	19.0	19.5	30.1	30.6	27.5	662.9
40 PERCENTILE	24.5	[illegible].7	25.2	29.6	125.1	256.6	157.4	50.2	31.0	35.3	33.2	26.7	757.2
20 PERCENTILE	27.[illegible]	[illegible]	25.7	35.1	154.1	339.2	179.5	55.4	41.5	42.4	37.0	30.5	924.6
MAXIMUM	[illegible]	[illegible]	37.2	52.7	157.0	393.6	275.6	64.5	77.2	62.1	44.6	37.5	1092.7
MINIMUM	14.5	1[illegible]	17.1	5.6	43.[illegible]	151.1	26.4	0.0	5.7	16.4	21.4	16.6	493.0

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	24.1	10.4	25.7	35.4	150.1	161.1	76.4	11.9	9.3	22.3	21.4	18.6	583.7
1940	14.5	17.7	20.2	25.0	142.1	134.5	31.0	0.0	13.2	34.4	27.0	26.8	537.2
1941	21.1	17.3	17.1	22.0	117.0	166.9	48.1	30.2	77.2	62.1	39.1	30.8	648.9
1942	24.0	13.5	23.7	41.8	95.9	191.1	128.4	13.5	17.6	30.7	33.2	31.1	649.8
1943	23.9	22.3	34.6	82.7	124.5	322.4	278.6	69.9	39.7	32.4	33.4	27.8	1092.7
1944	22.3	20.5	20.6	19.4	100.[illegible]	235.0	132.4	19.3	29.5	30.4	26.5	24.2	682.9
1945	23.9	19.2	25.2	20.4	71.4	239.6	211.4	55.8	29.8	35.4	34.2	27.8	792.1
1946	25.7	21.8	25.2	56.2	92.3	208.1	96.3	13.1	21.0	33.1	30.9	27.5	659.2
1947	20.7	20.6	35.3	28.2	163.7	195.4	137.7	35.1	19.5	35.3	33.1	28.4	752.0
1948	24.6	27.4	25.2	25.7	154.1	293.1	73.3	21.7	14.5	22.4	25.4	21.6	729.2
1949	17.7	17.0	28.2	35.0	158.6	234.9	79.5	10.0	21.8	33.6	30.5	30.4	698.5
1950	23.5	21.6	23.6	27.5	67.6	266.8	222.8	53.3	41.3	55.1	44.8	37.5	885.5
1951	29.5	29.0	31.2	33.5	160.2	199.1	212.3	84.3	37.3	45.6	38.1	26.9	927.1
1952	28.7	28.1	25.6	49.6	146.8	232.5	85.5	40.8	18.0	23.0	26.8	29.7	735.1
1953	29.1	19.9	21.0	24.7	49.2	243.8	125.7	30.0	14.8	18.7	28.7	28.8	634.2
1954	25.3	23.4	22.9	28.6	163.6	179.6	165.4	24.5	17.3	24.2	26.0	27.5	728.5
1955	26.3	23.1	25.5	27.1	54.3	195.2	76.5	13.0	8.3	18.4	27.5	29.4	532.6
1956	22.1	22.5	32.2	38.1	179.6	344.1	112.8	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.5	25.8	24.1	150.9	346.1	161.0	29.3	33.2	36.7	37.0	31.3	924.6
1958	25.9	21.5	21.6	25.5	187.0	199.9	41.4	22.9	19.5	20.5	30.7	31.2	646.4
1959	24.5	21.7	25.0	29.7	52.5	346.5	136.5	27.7	19.1	41.4	36.3	28.7	789.6
1960	20.1	19.5	28.9	29.6	58.5	216.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	5.6	83.5	238.4	26.4	3.0	50.8	49.9	35.8	27.1	583.1
1962	20.2	22.7	22.5	52.4	105.0	287.1	117.0	45.5	31.0	33.3	30.8	30.5	798.0
1963	21.4	33.0	25.0	25.0	137.4	295.2	87.9	9.2	31.9	24.7	29.3	24.6	732.6
1964	19.2	18.4	19.9	29.2	115.5	260.3	179.3	19.6	13.0	21.8	31.9	29.1	757.2
1965	27.9	23.9	20.1	34.6	91.9	339.2	199.6	66.6	44.0	45.3	34.9	31.0	959.0
1966	24.5	19.2	23.5	24.1	111.4	167.3	57.6	14.8	20.3	28.4	29.7	27.2	548.1
1967	26.7	21.6	22.1	20.4	109.3	376.5	232.0	41.1	23.9	42.4	37.0	28.9	981.9
1968	26.4	24.3	26.2	21.2	43.6	279.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	22.2	22.5	39.7	137.1	193.2	91.1	11.8	12.1	30.1	30.9	28.0	643.4
1970	24.3	22.7	22.0	20.2	135.0	306.1	115.9	17.2	34.5	37.9	31.6	28.3	796.7
1971	24.3	25.3	25.3	28.8	125.1	359.4	178.4	54.6	52.2	51.0	38.3	31.2	993.9
1972	29.5	20.8	37.2	27.6	111.0	376.3	154.4	67.7	51.3	58.2	41.0	29.6	994.6
1973	28.4	25.9	24.8	32.9	100.2	187.0	84.0	21.1	47.5	36.3	37.3	25.5	650.9
1974	30.8	22.5	25.2	38.4	97.1	393.6	180.2	53.9	31.9	29.9	34.3	27.9	965.7
1975	18.5	19.8	32.2	30.0	98.6	253.5	334.5	61.2	26.8	.0	1.0	.8	876.9
AVERAGE	24.1	22.3	25.1	31.4	115.2	256.9	129.7	33.0	28.2	33.1	31.6	27.4	758.1
MEDIAN	24.3	21.5	23.7	28.2	111.4	238.4	117.0	24.5	21.9	33.1	31.9	28.0	732.6
80 PERCENTILE	21.1	19.2	21.0	22.0	71.4	191.1	73.3	13.0	14.5	22.3	27.6	26.2	634.2
50 PERCENTILE	23.9	21.5	25.0	26.0	100.5	216.5	91.1	19.6	19.5	30.1	30.8	27.5	682.9
40 PERCENTILE	24.5	22.7	25.2	29.6	125.1	266.8	132.4	30.2	31.0	35.3	33.2	28.7	757.2
20 PERCENTILE	27.9	25.5	25.7	38.1	154.1	339.2	179.3	53.9	41.3	42.4	37.0	30.5	924.6
MAXIMUM	30.8	33.0	37.2	82.7	187.0	393.6	278.6	84.3	77.2	62.1	44.8	37.5	1092.7
MINIMUM	14.5	10.4	17.1	5.6	43.6	161.1	26.4	0.0	5.7	18.4	21.4	16.6	493.0

2000 RECORDED AND BASELINE FROM YELLO

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
[illegible]	23.1	[illegible]	[illegible]	33.8	155.1	161.1	70.4	11.9	9.5	22.5	21.4	[illegible]	383.7
1940	14.3	17.1	20.2	26.0	142.1	134.5	31.0	0.0	13.2	34.4	27.0	.8	537.2
1941	21.1	17.5	17.1	22.0	117.3	150.9	48.1	50.2	77.2	62.1	39.1	30.8	648.9
1942	20.0	[illegible]	23.7	41.8	93.7	191.1	120.4	13.5	17.8	30.7	33.2	31.1	649.8
[illegible]	[illegible]	[illegible]	34.	32.7	[illegible]	528.4	278.0	64.9	39.7	32.4	33.1	27.8	1092.7
[illegible]	[illegible]	[illegible]	[illegible]	14.4	[illegible]	235.0	132.4	19.5	24.5	30.4	20.5	24.2	682.9
1945	23.2	14.2	25.2	20.4	71.4	239.8	211.4	55.8	29.8	33.4	34.2	27.8	792.1
[illegible]	[illegible]	21.5	[illegible]	35.2	92.5	203.1	96.5	10.1	21.0	33.1	30.9	27.5	659.2
[illegible]	[illegible]	[illegible]	33.2	22.2	155.7	143.4	137.7	33.1	19.5	33.3	33.1	20.4	752.0
[illegible]	[illegible]	[illegible]	[illegible]	23.7	154.1	245.1	75.3	21.7	14.5	22.4	25.4	21.8	729.2
[illegible]	[illegible]	[illegible]	[illegible]	33.	[illegible]	254.9	79.3	10.0	21.3	33.5	30.3	30.4	598.3
[illegible]	23.3	21.0	23.0	27.3	57.3	255.5	222.0	53.5	41.3	55.1	44.8	37.5	883.5
1951	24.[illegible]	[illegible]	31.2	33.5	150.2	199.1	212.3	84.5	37.3	45.5	38.1	26.9	927.1
1952	26.7	23.1	20.0	49.6	140.3	232.5	85.5	40.6	10.0	25.0	20.5	29.7	735.1
[illegible]	21.1	19.4	21.0	24.7	44.2	245.8	125.7	50.0	14.0	18.7	23.7	25.5	634.2
[illegible]	23.3	23.4	22.9	23.3	155.3	174.6	159.4	24.5	17.5	24.2	26.0	27.5	720.5
1955	25.5	23.1	23.3	27.1	54.3	135.2	76.5	13.0	8.3	10.4	27.5	29.4	532.0
1956	22.1	22.5	32.2	33.1	179.5	344.1	112.3	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.3	23.3	24.1	150.9	345.1	161.0	29.3	33.2	36.7	37.0	31.3	924.6
1958	25.9	21.3	21.3	23.3	157.0	199.9	41.4	22.4	19.5	20.3	30.7	31.2	646.4
1959	24.5	21.7	23.6	29.7	52.5	346.5	136.5	27.7	19.1	41.4	30.3	26.7	789.6
1960	20.1	19.3	25.9	29.6	58.5	210.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	6.6	33.6	250.4	25.4	3.0	50.8	49.9	33.6	27.1	583.1
1962	20.2	22.7	22.3	32.4	195.[illegible]	287.1	117.0	45.3	31.0	33.3	30.8	30.5	796.0
[illegible]	21.[illegible]	33.9	23.0	23.0	137.4	235.2	87.9	9.2	31.9	24.7	29.5	24.6	732.6
1964	19.2	10.4	19.9	29.2	115.5	260.5	179.3	19.6	13.0	21.8	31.9	29.1	757.2
1965	27.9	23.9	20.1	34.6	91.9	339.2	199.6	66.6	44.0	43.3	34.9	31.0	959.0
1966	24.0	19.2	23.3	24.1	111.4	167.3	57.6	14.8	20.3	26.4	29.7	27.2	546.1
1967	23.7	21.3	22.1	20.4	109.3	375.5	232.0	41.1	23.9	42.4	37.0	28.9	981.9
1968	20.4	24.0	25.2	21.2	43.6	279.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	22.2	22.3	39.7	137.1	193.2	91.1	11.8	12.1	30.1	30.9	28.0	643.4
1970	24.3	22.7	22.0	20.2	136.0	306.1	115.9	17.2	34.5	37.9	31.6	20.3	790.7
1971	21.3	23.3	23.3	23.8	125.1	359.4	178.4	54.6	52.2	51.0	38.3	31.2	993.9
1972	29.5	20.5	37.2	27.6	111.0	378.3	134.4	67.7	51.3	58.2	41.0	29.6	994.6
[illegible]	23.4	23.9	24.8	32.9	100.2	187.0	84.0	21.1	47.5	36.3	37.3	25.5	650.9
1974	30.5	22.5	23.2	35.4	91.1	393.8	180.2	53.9	31.9	24.9	34.3	27.9	965.7
1975	16.5	1[illegible]	32.2	30.0	96.5	253.5	334.5	61.2	20.6	.0	1.0	.8	876.9
AVERAGE	21.1	20.3	23.1	31.4	113.2	255.9	124.7	33.0	26.2	33.1	31.6	27.4	758.1
MEDIAN	23.3	21.2	22.7	26.2	111.4	253.4	117.0	24.3	21.9	33.1	31.9	25.0	732.6
[illegible] PERCENTILE	[illegible]	[illegible]	21.[illegible]	22.0	71.4	191.1	73.3	13.0	14.5	22.3	27.6	26.2	634.2
[illegible] PERCENTILE	[illegible]	[illegible]	23.	22.0	100.[illegible]	213.5	41.1	19.6	19.5	30.1	30.8	27.5	582.9
[illegible] PERCENTILE	[illegible]	[illegible]	23.2	29.0	123.1	256.8	132.4	30.2	31.0	35.5	33.2	26.7	757.2
[illegible] PERCENTILE	27.[illegible]	[illegible]	23.7	33.1	154.1	359.2	179.5	53.9	41.3	42.4	37.0	30.5	924.6
MAX	30.5	33.9	37.2	52.7	157.0	393.8	278.0	84.5	77.2	62.1	44.8	37.5	1092.7
MIN	[illegible]	[illegible]	17.1	3.6	43.6	161.1	25.4	0.0	5.7	13.4	21.4	18.6	493.0

CLARKS FORK OF YELLOWSTONE AT EDGAR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	24.1	16.4	25.7	35.4	150.1	161.1	76.4	11.9	9.3	22.3	21.4	16.6	583.7
1940	14.5	17.7	20.2	25.0	142.1	184.5	31.0	0.0	13.2	34.4	27.0	26.8	537.2
1941	21.1	17.5	17.1	22.0	117.0	160.9	48.1	30.2	77.2	62.1	39.1	30.8	648.9
1942	24.0	19.5	23.7	41.8	95.9	191.1	128.4	13.5	17.8	30.7	33.2	31.1	649.8
1943	23.9	22.5	34.5	62.7	124.3	322.4	278.8	69.9	39.7	32.4	33.4	27.8	1092.7
1944	22.3	21.5	20.6	19.4	100.5	235.0	132.4	19.3	29.3	30.4	23.5	24.2	682.9
1945	25.9	14.2	23.2	20.4	71.4	239.6	211.4	55.8	29.8	35.4	34.2	27.8	792.1
1946	26.7	21.3	25.2	30.2	92.3	208.1	96.3	18.1	21.0	33.1	30.9	27.5	659.2
1947	20.7	20.6	33.3	28.2	163.7	190.4	137.7	35.1	19.5	35.3	33.1	28.4	752.0
1948	24.5	27.4	25.2	25.7	154.1	293.1	73.3	21.7	14.5	22.4	25.4	21.8	729.2
1949	17.7	17.0	28.2	35.0	158.6	254.9	79.8	10.0	21.8	33.6	30.5	30.4	698.5
1950	23.5	21.5	23.6	27.5	67.6	256.8	222.8	53.3	41.3	55.1	44.8	37.5	885.5
1951	29.6	29.0	31.2	33.5	160.2	199.1	212.5	84.3	37.3	45.6	38.1	26.9	927.1
1952	23.7	26.1	25.6	49.6	146.8	232.5	65.5	40.8	16.0	25.0	26.8	29.7	735.1
1953	29.1	14.9	21.0	24.7	49.2	243.8	125.7	30.0	14.8	18.7	26.7	28.6	634.2
1954	25.3	25.4	22.9	26.6	163.3	179.6	165.4	24.5	17.3	24.2	26.0	27.5	728.5
1955	20.3	23.1	25.5	27.1	64.3	193.2	76.5	13.0	8.3	18.4	27.5	29.4	532.6
1956	22.1	22.5	32.2	30.1	179.6	344.1	112.6	36.9	21.9	21.7	33.0	26.7	891.6
1957	21.7	27.5	25.8	24.1	150.9	346.1	161.0	29.3	33.2	36.7	37.0	31.3	924.6
1958	20.9	21.3	21.6	25.5	167.0	199.9	41.4	22.9	19.5	20.5	30.7	31.2	646.4
1959	24.5	21.7	25.0	29.7	52.5	346.5	136.5	27.7	19.1	41.4	36.3	28.7	789.6
1960	20.1	19.3	28.9	29.6	56.5	215.5	27.4	14.0	5.7	20.7	27.6	24.7	493.0
1961	23.1	19.4	19.0	6.6	83.6	238.4	26.4	3.0	50.8	49.9	35.8	27.1	583.1
1962	20.2	22.7	22.5	52.4	105.0	287.1	117.0	45.5	31.0	33.3	30.8	30.5	798.0
1963	21.4	33.0	23.0	25.0	137.4	285.2	87.9	9.2	31.9	24.7	29.3	24.6	732.6
1964	19.2	16.4	19.9	29.2	115.5	260.3	179.3	19.6	13.0	21.8	31.9	29.1	757.2
1965	27.9	23.9	20.1	34.6	91.9	339.2	199.6	66.6	44.0	45.3	34.9	31.0	959.0
1966	24.6	19.2	23.5	24.1	111.4	167.3	57.6	14.8	20.3	28.4	29.7	27.2	548.1
1967	25.7	21.6	22.1	20.4	109.3	376.5	232.0	41.1	23.9	42.4	37.0	26.9	981.9
1968	26.4	24.3	26.2	21.2	43.5	274.4	120.4	73.0	42.0	37.7	31.9	26.2	752.3
1969	24.7	22.2	22.5	34.7	137.1	193.2	91.1	11.8	12.1	30.1	30.9	28.0	643.4
1970	24.3	22.7	22.0	20.2	136.0	306.1	115.9	17.2	34.5	37.9	31.6	28.3	796.7
1971	24.3	25.5	25.5	28.8	125.1	359.4	176.4	54.6	52.2	51.0	38.3	31.2	993.9
1972	29.5	28.8	37.2	27.0	111.0	370.3	134.4	67.7	51.3	56.2	41.0	29.6	994.6
1973	26.4	25.9	24.8	32.9	100.2	187.0	84.0	21.1	47.5	36.3	37.3	25.5	650.9
1974	30.5	22.5	25.2	38.4	97.1	393.8	180.2	53.9	31.9	29.9	34.3	27.9	965.7
1975	18.5	19.8	32.2	30.0	98.6	253.5	334.5	61.2	26.8	.0	1.0	.8	876.9
AVERAGE	24.1	22.3	25.1	31.4	115.2	256.9	129.7	33.0	28.2	33.1	31.6	27.4	758.1
MEDIAN	24.3	21.8	23.7	25.2	111.4	235.4	117.0	24.5	21.9	33.1	31.9	28.0	732.6
80 PERCENTILE	21.1	19.2	21.0	22.0	71.4	191.1	73.3	13.0	14.5	22.3	27.6	26.2	634.2
60 PERCENTILE	23.4	21.3	23.0	26.0	100.5	216.5	91.1	19.6	19.5	30.1	30.8	27.5	682.9
40 PERCENTILE	24.5	22.7	25.2	29.6	125.1	256.8	132.4	30.2	31.0	35.3	33.2	28.7	757.2
20 PERCENTILE	27.9	25.3	26.7	38.1	154.1	339.2	179.3	53.9	41.3	42.4	37.0	30.5	924.6
MAXIMUM	30.6	33.0	37.2	82.7	187.0	393.8	278.8	84.3	77.2	62.1	44.8	37.5	1092.7
MINIMUM	14.5	16.4	17.1	5.6	43.6	151.1	26.4	0.0	5.7	16.4	21.4	16.6	493.0

YELLOWSTONE RIVER AT BILLINGS

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL B OPERATION STUDY
2000 REDUCED DEVELOPMENT MINUS GASIF

YELLOWSTONE RIVER AT BILLINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	135.3	195.7	214.1	234.8	645.0	941.5	420.5	151.7	115.9	170.8	155.6	134.2	3640.7
1940	85.9	105.2	137.5	159.5	794.2	1106.3	288.1	75.3	103.8	207.3	163.8	136.3	3284.6
1941	116.5	115.2	150.6	154.9	551.7	930.0	521.7	193.8	580.9	422.0	287.4	222.4	3600.9
1942	132.2	151.1	245.7	349.5	759.5	1451.9	643.5	236.9	191.9	232.2	230.9	208.0	5111.3
1943	152.2	225.9	331.2	521.5	754.4	2135.1	1585.4	465.9	300.8	249.4	231.1	195.5	7233.6
1944	154.4	140.7	179.2	145.2	511.3	1090.9	981.3	255.7	235.0	233.0	211.2	145.0	4880.4
1945	161.0	127.5	166.6	157.7	454.5	1474.6	1163.2	374.0	247.4	262.9	243.1	170.7	5021.5
1946	200.5	188.3	195.0	329.3	631.0	1225.6	576.5	180.1	209.5	271.6	217.5	182.1	4401.0
1947	163.2	123.2	195.5	272.8	1037.7	1479.7	960.2	358.6	[illegible].3	299.9	243.4	207.0	5605.5
1948	165.5	156.9	200.3	232.8	1030.3	2131.9	714.7	292.4	165.0	208.7	192.7	136.6	5626.4
1949	121.5	133.5	162.9	256.9	940.1	1316.9	525.2	177.8	194.5	244.6	204.2	126.2	4461.3
1950	90.2	117.4	194.5	205.4	525.1	1629.1	1271.4	437.4	279.4	331.9	295.9	251.6	5630.6
1951	175.2	199.1	232.5	270.1	692.4	1220.4	1054.4	551.0	293.3	317.1	271.2	166.4	5663.1
1952	165.1	158.7	167.9	407.6	1229.5	1601.4	689.5	330.7	196.6	192.2	182.3	168.6	5510.1
1953	173.8	141.4	150.6	164.9	325.0	1454.3	790.6	280.2	165.0	173.4	193.4	175.3	4187.9
1954	125.6	15[illegible].9	140.3	197.5	541.4	1059.4	902.0	276.4	167.4	189.5	190.8	161.5	4411.4
1955	136.2	115.2	144.0	235.1	449.4	1183.0	569.9	205.9	136.1	187.1	173.0	174.4	3709.3
1956	162.5	140.1	251.2	308.6	1206.7	1902.4	696.8	299.2	198.7	190.3	214.0	179.1	5753.6
1957	102.5	143.7	187.7	186.1	959.1	2233.7	1036.5	265.8	260.6	263.5	238.8	195.7	6093.7
1958	154.4	135.5	159.8	179.3	952.0	1129.4	420.3	193.7	151.9	169.3	201.2	178.9	4025.7
1959	142.5	125.6	179.6	214.4	497.3	1940.5	649.1	239.6	180.8	269.4	234.4	195.6	5069.1
1960	120.1	159.9	179.2	208.2	396.7	1162.9	307.5	169.2	116.9	164.9	184.9	153.3	3303.7
1961	137.4	135.9	125.6	84.0	418.5	1106.1	249.0	96.8	261.5	309.0	276.1	197.6	3395.7
1962	147.2	222.3	215.5	357.8	801.2	1720.2	874.7	360.4	279.4	248.2	219.5	188.8	5655.2
1963	134.7	229.3	164.2	181.7	773.7	1782.0	644.8	206.5	223.7	200.3	203.7	155.7	4900.3
1964	147.4	155.1	150.2	200.4	699.0	1707.8	1113.8	318.4	206.2	189.6	207.8	188.4	5262.6
1965	211.5	185.2	174.5	504.6	680.7	2075.9	1428.7	540.5	387.0	356.0	256.4	202.4	6807.6
1966	182.9	172.4	204.3	235.4	805.6	958.9	436.3	184.5	179.7	213.2	219.3	194.5	3987.0
1967	191.5	165.1	197.5	164.6	673.7	2435.0	1569.4	375.0	226.2	300.5	253.1	198.4	6770.5
1968	166.[illegible]	[illegible]3.3	225.5	219.1	465.9	2022.2	1102.4	541.6	412.3	341.1	[illegible]6.2	203.5	6204.4
1969	[illegible]	[illegible]	225.6	361.6	954.5	1315.2	911.9	257.3	181.9	252.5	226.5	191.8	5253.5
1970	[illegible]	[illegible]	16[illegible].6	132.2	1005.5	2164.2	99[illegible].6	303.7	327.0	302.6	242.2	193.0	6198.6
1971	191.5	226.0	197.2	282.9	690.1	2206.2	1267.6	432.3	375.4	349.3	273.6	204.0	6898.1
1972	154.4	199.9	302.5	234.0	709.5	1947.8	642.1	452.1	377.6	391.1	286.7	203.6	6113.2
1973	194.2	172.5	203.0	289.6	649.3	1245.7	612.7	223.4	307.5	265.[illegible]	247.0	202.1	4812.5
1974	192.5	1[illegible].5	179.[illegible]	274.8	607.4	2427.4	1291.2	466.1	283.6	257.[illegible]	248.8	164.3	6562.9
1975	1[illegible].0	124.6	215.2	305.0	903.1	1944.8	2251.8	528.5	280.0	0.[illegible]	2.9	2.2	6711.2
AVERAGE	155.7	156.0	193.0	247.5	751.5	1606.1	880.4	305.9	239.1	[illegible]49.3	[illegible]21.9	178.2	5188.7
MEDIAN	162.2	153.9	187.7	232.8	773.7	1479.7	843.5	280.2	225.7	249.4	228.5	188.4	5111.3
[illegible] PERCENTILE	125.3	12[illegible].5	150.6	179.3	497.3	1129.4	436.5	184.5	165.0	16[illegible]	192.7	155.7	3987.0
[illegible] PERCENTILE	[illegible]	[illegible]	179.2	20[illegible].4	680.7	1316.9	69[illegible].8	236.9	196.6	232.[illegible]	214.0	179.1	4880.4
[illegible] PERCENTILE	[illegible]	158.7	[illegible]	254.5	805.5	1707.8	911.9	303.7	259.3	263.5	238.8	193.3	5605.5
[illegible] PERCENTILE	192.2	186.3	215.5	304.5	952.0	2076.9	1113.8	432.3	300.8	309.0	256.4	202.4	6113.2
MAXIMUM	211.5	229.3	331.2	521.5	1229.5	2435.0	1585.4	551.0	412.3	422.0	295.9	251.6	7233.6
MINIMUM	85.9	105.7	125.6	84.0	325.0	900.0	249.0	75.3	103.8	164.9	153.6	126.2	3284.6

2000 RECOMEND AND BASELINE DEVELOPMEN

YELLOWSTONE RIVER AT BILLINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	135.9	103.3	213.7	254.4	845.5	940.8	419.8	151.2	113.6	170.4	153.2	133.8	3635.6
1940	86.5	105.4	136.9	169.1	703.7	1105.8	287.6	74.8	103.5	206.9	163.4	135.9	3279.5
1941	117.9	112.8	130.2	158.5	551.2	899.5	321.2	193.3	380.6	421.6	287.0	222.0	3795.8
1942	181.8	150.7	243.3	349.1	789.0	1451.4	843.0	236.4	191.6	231.8	230.5	207.6	5106.2
1943	161.8	223.5	330.8	521.1	784.3	2185.6	1584.9	463.4	300.5	249.0	230.7	192.9	7228.5
1944	164.0	140.3	178.8	145.8	511.3	1696.4	980.8	235.2	234.7	232.6	210.8	144.6	4875.3
1945	160.6	127.1	166.4	157.3	454.1	1474.1	1182.7	373.5	245.1	262.5	242.7	170.3	5016.4
1946	200.1	187.9	197.6	328.9	630.5	1225.1	576.0	179.6	200.2	271.2	217.1	181.7	4395.9
1947	162.8	127.8	195.1	272.4	1037.2	1479.2	959.7	358.1	259.0	299.5	243.0	206.6	5600.4
1948	165.2	156.5	199.9	232.4	1030.3	2131.4	714.2	291.9	164.7	208.3	192.3	136.2	5623.3
1949	121.1	133.1	182.5	288.5	939.6	1318.4	522.7	177.3	194.2	244.2	208.8	125.8	4456.2
1950	89.8	117.0	194.4	206.0	524.6	1628.6	1270.9	436.9	279.1	331.5	295.5	251.2	5625.5
1951	174.8	198.7	232.1	269.7	891.9	1219.9	1053.9	550.5	293.0	316.7	270.8	186.0	5658.0
1952	164.7	158.3	187.5	407.2	1229.0	1600.9	689.0	330.2	196.3	191.8	181.9	168.2	5505.0
1953	173.4	141.0	150.2	164.5	324.5	1453.8	790.1	279.7	164.7	173.0	193.0	174.9	4182.8
1954	123.4	150.5	139.9	197.1	841.4	1068.9	901.5	275.9	167.1	189.1	190.4	161.1	4406.3
1955	135.8	114.8	143.6	234.7	448.9	1182.5	569.4	205.4	135.8	186.7	172.6	174.0	3704.2
1956	162.1	145.7	250.8	308.2	1206.2	1901.9	696.3	298.7	196.4	189.9	213.6	178.7	5748.5
1957	102.1	143.3	187.3	185.7	958.6	2233.2	1036.0	285.3	260.3	263.1	238.4	195.3	6088.6
1958	154.0	135.1	159.4	178.9	951.5	1128.9	419.8	193.2	151.6	168.9	200.8	178.5	4020.6
1959	142.2	125.2	179.2	214.0	496.8	1940.0	848.6	239.3	180.5	269.0	234.0	195.2	5064.0
1960	119.7	139.5	178.8	207.8	396.2	1162.4	307.0	168.7	116.6	164.5	184.5	152.9	3298.6
1961	137.0	133.5	125.4	83.6	418.0	1105.6	248.5	96.3	261.2	308.6	275.7	197.2	3390.6
1962	146.8	221.9	215.1	357.4	800.7	1719.7	874.2	379.9	279.1	247.8	219.1	188.4	5650.1
1963	134.3	228.9	163.8	181.3	773.2	1781.5	644.3	206.0	223.4	199.9	203.3	155.3	4895.2
1964	147.0	152.7	149.8	200.5	698.5	1707.3	1113.3	317.9	205.9	189.2	207.4	188.0	5277.5
1965	211.1	185.9	174.1	304.4	680.2	2076.4	1428.2	540.0	386.7	355.6	258.0	202.0	6802.5
1966	182.5	172.0	203.9	235.0	805.1	958.4	435.8	184.0	179.4	212.8	218.9	194.1	3981.9
1967	191.4	164.7	197.1	184.4	673.2	2434.5	1568.9	374.5	225.9	300.1	252.7	198.0	6765.4
1968	166.1	222.9	227.9	218.7	465.4	2021.7	1101.9	541.1	412.0	340.7	277.8	203.1	6199.3
1969	180.1	180.6	226.4	361.2	964.0	1314.7	911.4	256.8	181.6	252.1	228.1	191.4	5248.4
1970	157.7	160.4	168.2	181.8	1005.1	2163.7	990.1	303.2	326.7	302.2	241.8	192.6	6193.5
1971	191.1	227.6	196.8	282.5	889.6	2205.7	1267.1	431.8	375.1	348.9	273.2	203.6	6893.0
1972	164.0	199.5	302.2	233.6	709.0	1947.1	841.6	451.6	377.3	390.7	288.3	203.2	6108.1
1973	193.8	172.1	202.6	289.4	848.8	1245.2	612.2	222.9	307.2	264.9	246.6	201.7	4807.4
1974	192.4	148.1	179.5	274.4	607.4	2426.9	1290.7	465.6	283.3	257.2	248.4	183.9	6557.8
1975	151.6	124.2	214.8	305.6	902.6	1944.3	2251.3	528.0	279.7	0.0	2.5	1.8	6706.5
AVERAGE	155.3	157.7	192.6	247.1	751.0	1607.6	879.9	305.4	238.7	249.0	221.5	177.8	5183.6
MEDIAN	161.8	150.5	187.3	232.4	773.2	1479.2	843.0	279.7	223.4	249.0	228.1	188.0	5106.2
80 PERCENTILE	123.4	127.1	150.2	178.9	496.8	1128.9	435.8	184.0	164.7	189.2	192.3	155.3	3981.9
60 PERCENTILE	147.0	141.0	178.8	206.0	680.2	1318.4	696.3	236.4	196.3	231.8	213.6	178.7	4875.3
40 PERCENTILE	164.0	158.3	196.8	254.4	805.1	1707.3	911.4	303.2	259.0	263.1	238.4	192.9	5600.4
20 PERCENTILE	181.8	187.9	215.1	304.4	951.5	2076.4	1113.3	431.8	300.5	308.6	258.0	202.0	6108.1
MAXIMUM	211.1	228.9	330.8	521.1	1229.0	2434.5	1584.9	550.5	412.0	421.6	295.5	251.2	7228.5
MINIMUM	86.5	103.3	125.4	83.6	324.5	899.5	248.5	74.8	103.5	164.5	153.2	125.8	3279.5

HRBC SEC 13A ENERGY ASSESSMENT
2000 RECOMMEND AND DUE DEVELOPMENT

YELLOWSTONE RIVER AT BILLINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	135.4	102.0	213.2	253.8	644.9	910.2	419.1	150.5	113.1	169.8	152.6	135.3	3628.7
1940	86.0	104.9	135.4	166.5	703.1	1105.2	286.9	74.1	103.0	206.3	162.8	135.4	3272.6
1941	117.4	112.3	129.7	157.9	550.5	698.9	320.5	192.6	380.1	421.0	286.4	221.5	3788.9
1942	131.3	150.2	242.8	348.5	788.4	1450.6	842.3	235.7	191.1	231.2	229.9	207.1	5099.3
1943	161.3	223.0	330.3	520.5	783.7	2183.0	1584.2	462.7	300.0	248.4	230.1	192.[illegible]	7221.6
1944	163.5	134.3	173.5	145.2	510.7	1695.8	980.1	234.5	234.2	232.0	210.2	144.1	4868.4
1945	160.1	126.6	165.9	156.7	453.5	1473.5	1182.0	372.8	244.6	261.9	242.1	169.8	5009.5
1946	199.5	187.4	197.1	325.3	629.9	1224.5	575.3	178.9	199.7	270.6	216.5	181.2	4389.0
1947	162.3	127.3	194.5	271.8	1035.6	1478.6	959.0	357.4	258.5	298.9	242.4	206.1	5593.5
1948	164.7	155.0	199.4	231.8	1029.7	2130.8	713.5	291.2	164.2	207.7	191.7	135.7	5616.4
1949	120.6	132.5	182.0	287.9	939.0	1317.8	522.0	176.6	193.7	243.6	208.2	125.3	4449.3
1950	89.3	116.5	193.9	205.4	524.0	1628.0	1270.2	436.2	278.6	330.9	294.9	250.7	5618.6
1951	174.3	198.2	231.5	269.1	891.3	1219.3	1053.2	549.8	292.5	316.1	270.2	183.5	5651.1
1952	164.2	157.8	187.0	406.6	1228.4	1600.3	686.3	329.5	195.8	191.2	181.3	167.7	5498.1
1953	172.9	140.5	149.7	153.9	323.9	1453.2	789.4	279.0	164.2	172.4	192.4	174.4	4175.9
1954	122.9	150.0	139.4	195.5	640.8	1056.3	900.8	275.2	166.6	188.5	189.8	160.6	4399.4
1955	135.3	114.3	143.1	234.1	448.3	1181.9	566.7	204.7	135.3	186.1	172.0	173.5	3697.3
1956	161.5	145.2	250.3	307.6	1205.6	1901.3	695.6	296.0	195.9	189.3	213.0	178.2	5741.6
1957	191.5	142.3	186.6	185.1	953.0	2232.6	1035.3	284.6	259.8	262.5	237.8	194.8	6081.7
1958	153.5	134.6	158.9	178.5	950.9	1128.3	419.1	192.5	151.1	166.3	200.2	178.0	4013.7
1959	141.7	124.7	178.7	213.4	496.2	1939.4	647.9	238.6	180.0	268.4	233.4	194.7	5057.1
1960	119.2	139.0	178.3	207.2	395.6	1161.8	306.3	166.0	116.1	163.9	183.9	152.4	3291.7
1961	136.5	133.0	124.9	83.0	417.4	1105.0	247.8	95.6	260.7	308.0	275.1	196.7	3383.7
1962	146.3	221.4	214.6	356.8	800.1	1719.1	873.5	379.2	278.6	247.2	218.5	187.9	5643.2
1963	133.8	228.4	163.3	180.7	772.5	1780.9	643.6	205.3	222.9	199.3	202.7	154.8	4888.3
1964	145.5	152.2	149.3	193.9	697.9	1705.7	1112.6	317.2	205.4	188.6	206.8	187.5	5270.6
1965	210.6	185.3	173.6	303.8	679.6	2075.8	1427.5	539.3	386.2	355.0	257.4	201.5	6795.6
1966	182.0	171.5	203.4	234.4	804.5	957.6	435.1	183.3	178.9	212.2	218.3	193.6	3975.0
1967	190.9	164.2	195.5	183.8	672.5	2433.9	1568.2	373.8	225.4	299.5	252.1	197.5	6758.5
1968	165.5	222.4	227.4	216.1	464.8	2021.1	1101.2	540.4	411.5	340.1	277.2	202.6	6192.4
1969	179.5	180.1	225.9	360.6	963.4	1314.1	910.7	256.1	181.1	251.5	227.5	190.9	5241.5
1970	157.2	159.9	167.7	181.2	1004.5	2163.1	989.4	302.5	326.2	301.6	241.2	192.1	6186.6
1971	190.5	227.1	196.3	281.9	689.0	2205.1	1266.4	431.1	374.6	348.3	272.6	203.1	6886.1
1972	165.5	199.0	301.7	233.0	708.4	1946.5	640.9	450.9	376.8	390.1	287.7	202.7	6101.2
1973	193.3	171.5	202.1	238.6	648.2	1244.6	611.5	222.2	306.7	264.3	246.0	201.2	4800.5
1974	191.9	147.6	179.0	273.6	606.8	2426.3	1290.0	464.9	282.8	256.6	247.8	183.4	6550.9
1975	151.1	123.7	214.3	305.0	902.0	1943.7	2250.6	527.3	279.2	0.0	1.9	1.3	6700.1
AVERAGE	154.8	157.2	192.1	246.6	750.4	1607.0	879.2	304.7	238.2	248.4	220.9	177.2	5176.7
MEDIAN	161.5	150.0	186.3	231.8	772.5	1478.6	842.3	279.0	222.9	248.4	227.5	187.5	5099.3
80 PERCENTILE	122.9	126.6	149.7	178.3	496.2	1128.3	435.1	183.3	164.2	188.6	191.7	154.8	3975.0
60 PERCENTILE	145.5	140.5	173.3	205.4	679.5	1317.8	695.6	235.7	195.8	231.2	213.0	178.2	4868.4
40 PERCENTILE	163.5	157.8	195.5	253.6	804.5	1705.7	910.7	302.5	256.5	262.5	237.8	192.4	5593.5
20 PERCENTILE	181.5	187.4	214.6	303.8	950.9	2075.8	1112.6	431.1	300.0	308.0	257.4	201.5	6101.2
MAXIMUM	210.6	226.4	330.3	520.5	1228.4	2433.9	1584.2	549.8	411.5	421.0	294.9	250.7	7221.6
MINIMUM	86.0	102.0	124.9	83.0	323.9	698.9	247.8	74.1	103.0	163.9	152.6	125.3	3272.6

[illegible] REQUIRED AND BASELINE FROM [illegible]

YELLOWSTONE RIVER AT BILLINGS

YR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	155.4	[illegible]	213.7	134.4	643.5	741.5	419.5	131.2	113.6	170.4	155.2	155.8	3053.6
1940	55.5	105.4	136.9	159.1	703.7	1105.6	267.[illegible]	74.8	105.5	206.4	163.4	155.9	3279.5
1941	117.4	112.5	131.2	153.5	551.2	699.5	321.2	195.5	360.6	421.6	267.0	222.0	3795.8
1942	151.5	159.7	245.5	349.1	759.5	1451.4	345.0	236.4	191.6	231.8	230.5	207.6	5106.2
1943	151.5	[illegible]	150.	321.1	784.[illegible]	2135.5	1364.9	465.4	300.5	249.0	250.7	192.9	7225.5
1944	154.[illegible]	[illegible]	172.5	[illegible]	311.5	1595.4	436.6	255.2	234.7	232.6	210.8	144.0	4675.5
1945	[illegible]	127.1	158.4	157.5	454.1	1474.1	1162.7	375.5	245.1	262.5	242.7	170.5	5016.4
1946	200.1	127.9	197.6	326.9	636.5	1225.1	376.0	179.6	200.2	271.2	217.1	181.7	4595.9
1947	152.5	127.5	195.1	272.4	1037.[illegible]	1479.2	599.7	350.1	259.0	299.5	245.0	206.6	5600.4
1948	165.2	156.5	199.9	252.4	1056.5	2151.4	714.2	241.9	164.7	206.5	192.5	136.2	5625.5
1949	121.1	155.1	162.5	[illegible]	959.5	1516.4	522.7	177.5	194.2	244.2	235.6	125.6	4456.2
1950	69.	117.[illegible]	194.4	265.0	564.[illegible]	1626.6	1270.4	436.9	279.1	331.5	295.5	251.2	5625.5
1951	174.5	146.7	232.1	209.7	691.9	1219.4	1055.9	550.5	245.0	316.7	270.6	160.0	5056.0
1952	164.7	[illegible]	187.5	407.2	1229.1	1636.9	689.0	330.2	196.5	191.8	161.9	166.2	5505.0
1953	175.4	141.[illegible]	[illegible]	154.5	528.5	1455.6	790.1	279.7	164.7	175.6	135.0	174.9	4182.6
1954	125.4	135.5	134.9	197.1	541.4	1059.9	901.5	275.9	167.1	139.1	190.4	161.1	4406.5
1955	155.4	114.5	143.6	234.7	448.9	1182.5	569.4	205.4	135.8	186.7	172.6	174.0	3704.2
1956	[illegible]	145.7	250.[illegible]	303.2	1206.2	1901.9	695.5	298.7	196.4	169.9	215.6	178.7	5748.5
1957	[illegible]	145.5	187.5	135.7	956.5	2235.2	1056.0	285.5	260.3	265.1	238.4	195.3	6086.6
1958	154.[illegible]	155.1	159.4	178.9	451.5	1126.9	419.3	195.2	151.6	166.9	200.6	176.5	4020.6
1959	[illegible]	165.2	174.2	214.0	496.6	1940.0	543.6	259.5	180.5	269.6	254.0	195.2	5064.0
1960	119.7	154.5	175.5	207.8	596.2	1162.4	307.0	168.7	116.6	164.5	154.5	152.9	3298.6
1961	137.0	155.5	125.4	35.6	415.0	1105.6	248.5	96.5	261.2	308.6	275.7	197.2	3390.6
1962	145.5	291.9	215.1	557.4	600.7	1719.7	974.2	379.9	279.1	247.5	219.1	168.4	5656.1
1963	154.5	[illegible]	155.5	151.5	775.2	1731.5	644.5	206.0	225.4	199.9	205.5	155.5	4695.2
1964	147.	[illegible]	149.5	200.5	598.5	1707.3	1115.3	317.9	205.9	169.2	207.4	188.0	5277.5
1965	211.1	[illegible]	174.1	504.4	[illegible]	2075.4	1426.2	540.0	386.7	355.6	258.0	202.0	6802.5
1966	152.5	172.0	205.9	235.0	605.1	955.4	435.8	164.0	179.4	212.8	210.9	194.1	3981.9
1967	191.4	166.7	197.1	194.4	675.2	2434.5	1565.9	374.5	225.9	300.1	252.7	198.0	6765.4
1968	[illegible]	[illegible]	227.9	215.7	465.4	2021.7	1101.9	541.1	412.0	340.7	277.6	205.1	6199.5
1969	180.1	[illegible]	225.4	561.2	[illegible]	1514.7	911.4	256.6	181.6	252.1	228.1	191.4	5246.4
1970	157.7	[illegible]	165.2	131.6	1005.1	2155.7	990.1	305.2	325.7	302.2	241.8	192.6	6195.5
1971	191.1	227.5	195.8	242.5	689.5	2205.7	1267.1	431.6	375.1	345.9	275.2	205.6	6895.0
1972	164.0	199.5	302.2	255.6	709.[illegible]	1947.1	341.6	451.5	377.5	390.7	266.5	205.2	6105.1
1973	195.5	172.1	202.5	269.4	[illegible]	1245.2	512.2	[illegible]	307.2	264.9	246.6	201.7	4307.4
1974	192.6	143.1	179.5	274.1	607.4	2425.9	1290.7	465.6	285.5	257.2	245.4	165.9	6557.6
1975	151.5	124.2	214.5	505.6	402.5	1944.5	2251.3	528.0	279.7	0.0	2.5	1.6	6706.5
AVERAGE	155.5	[illegible]	192.6	247.1	751.6	1507.6	674.9	305.9	236.7	249.0	221.5	177.6	5183.6
MEDIAN	151.5	[illegible]	187.5	252.4	775.2	1479.2	645.0	279.7	225.4	249.0	226.1	188.0	5106.2
[illegible] PERCENTILE	125.4	[illegible]	150.2	173.9	[illegible]	1125.9	455.6	184.0	164.7	169.2	192.5	155.5	3981.9
[illegible] PERCENTILE	147.[illegible]	[illegible]	179.5	205.0	[illegible]	1515.4	696.5	236.4	196.5	231.5	215.6	176.7	4575.5
80 PERCENTILE	164.0	155.5	195.5	254.4	805.1	1707.5	911.4	305.2	259.0	265.1	236.4	192.9	5600.4
90 PERCENTILE	191.5	157.9	215.1	504.4	951.5	2075.4	1115.5	451.8	300.5	308.6	256.0	202.0	6106.1
MAXIMUM	211.1	[illegible]	350.5	521.1	1229.6	2435.5	1584.9	550.5	412.0	421.5	295.5	251.2	7225.5
MINIMUM	55.5	105.5	125.4	35.6	324.5	699.5	240.5	74.8	105.5	164.5	155.2	125.6	3279.5

2000 RECOMMEND AND DUE FROM BIGHORN

YELLOWSTONE RIVER AT BILLINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	155.4	102.6	213.2	253.8	644.4	940.2	419.1	150.5	113.1	169.8	152.6	133.3	3628.7
1940	85.0	101.9	155.4	153.5	705.1	1105.2	280.9	74.1	105.0	206.5	162.8	135.4	3272.6
1941	117.4	112.5	129.7	157.9	550.6	898.9	320.5	192.6	380.1	421.0	286.4	221.5	3788.9
1942	151.5	150.2	242.5	345.5	750.4	1450.8	642.5	235.7	191.1	231.2	229.9	207.1	5099.3
1943	161.5	225.0	330.3	520.5	785.7	2185.0	1584.2	462.7	300.0	248.4	230.1	192.4	7221.6
1944	165.5	134.3	175.5	145.2	510.7	1545.6	980.1	234.5	234.2	232.0	210.2	144.1	4868.4
1945	160.1	126.5	165.9	156.7	453.5	1475.5	1182.0	372.8	244.6	261.9	242.1	169.8	5009.5
1946	199.6	167.4	197.1	326.3	629.9	1224.5	575.3	178.9	199.7	270.6	216.5	181.2	4389.0
1947	162.5	127.5	194.6	271.8	1036.6	1478.6	959.0	357.4	258.5	298.9	242.4	206.1	5593.5
1948	154.7	[illegible]	199.4	251.6	1029.7	2130.6	715.5	291.2	164.2	207.7	191.7	135.7	5616.4
1949	120.5	152.6	162.0	287.9	937.1	1317.8	322.0	176.6	193.7	243.6	208.2	125.3	4449.3
1950	89.4	115.5	195.9	215.4	524.0	1625.0	1270.2	436.2	278.5	330.9	294.9	250.7	5618.6
1951	174.5	193.2	251.5	269.1	891.5	1219.3	1055.2	549.8	292.5	316.1	270.2	185.5	5651.1
1952	164.2	157.5	187.0	405.6	1223.4	1600.3	688.3	329.5	195.8	191.2	181.3	167.7	5498.1
1953	172.4	[illegible]	144.7	165.9	525.9	1435.2	789.4	279.0	164.2	172.4	192.4	174.4	4175.9
1954	122.4	[illegible]	159.4	145.5	643.3	1066.5	900.5	275.2	166.6	188.5	189.8	160.6	4399.4
1955	135.5	114.5	143.1	234.1	446.5	1181.9	566.7	204.7	135.3	186.1	172.0	175.5	3697.3
1956	161.5	143.2	250.5	307.6	1205.6	1901.3	695.6	298.0	195.9	189.3	213.0	176.2	5741.6
1957	[illegible]	[illegible]	185.6	185.1	958.0	2232.6	1035.3	284.6	259.8	262.5	237.8	194.8	6081.7
1958	155.5	134.0	155.9	176.3	950.4	1126.5	419.1	192.5	151.1	168.5	200.2	178.0	4013.7
1959	141.7	124.7	175.7	213.4	495.2	1939.4	647.9	230.6	130.0	268.4	233.4	194.7	5057.1
1960	119.2	139.0	178.5	207.2	395.6	1161.8	306.5	160.0	116.1	163.9	183.9	152.4	3291.7
1961	136.5	135.0	124.9	65.0	417.4	1105.0	247.6	95.6	260.7	308.0	275.1	196.7	3383.7
1962	146.5	221.4	214.6	350.6	800.1	1719.1	973.5	379.2	278.6	247.2	218.5	187.9	5643.2
1963	135.5	225.4	165.5	160.7	772.6	1780.9	643.6	205.5	222.9	199.3	202.7	154.8	4888.3
1964	145.5	152.2	149.5	199.9	597.9	1706.7	1112.6	317.2	205.4	188.6	206.8	187.5	5270.6
1965	210.6	155.5	173.6	303.8	679.6	2075.8	1427.5	539.3	386.2	355.0	257.4	201.5	6795.6
1966	182.0	171.5	205.4	234.4	604.5	957.8	435.1	185.3	176.9	212.2	218.3	193.6	3975.0
1967	140.9	164.2	195.5	155.6	672.6	2433.9	1568.2	373.8	225.4	299.5	252.1	197.5	6758.5
1968	165.5	222.4	227.4	216.1	464.5	2021.1	1101.2	540.4	411.5	340.1	277.2	202.6	6192.4
1969	179.5	[illegible]	225.9	300.6	963.4	1314.1	910.7	255.1	181.1	251.5	227.5	190.9	5241.5
1970	157.2	139.5	167.7	181.2	1004.5	2165.1	989.4	302.5	326.2	301.6	241.2	192.1	6186.6
1971	190.5	227.1	195.5	281.9	889.0	2205.1	1266.4	431.1	374.6	340.3	272.6	203.1	6886.1
1972	153.5	199.0	301.7	253.0	706.4	1946.5	840.9	450.9	376.8	390.1	287.7	202.7	6101.2
1973	145.3	171.5	202.1	266.6	842.2	1244.6	611.5	222.2	306.7	264.3	246.0	201.2	4800.5
1974	191.9	147.6	179.0	275.8	606.8	2426.5	1240.0	464.9	282.6	256.5	247.6	183.4	6550.9
1975	151.1	123.7	214.5	305.0	902.0	1943.7	2250.6	527.3	279.2	0.0	1.9	1.5	6700.1
AVERAGE	154.8	157.2	192.1	245.6	750.4	1607.0	879.2	304.7	238.2	248.4	220.9	177.2	5176.7
MEDIAN	161.5	150.0	185.5	231.8	772.5	1473.6	842.5	279.0	222.9	245.4	227.5	187.5	5099.3
80 PERCENTILE	122.4	126.6	149.7	175.5	495.2	1126.3	435.1	185.3	164.2	188.6	191.7	154.8	3975.0
60 PERCENTILE	145.5	140.5	178.5	205.4	679.6	1317.8	695.6	235.7	195.8	231.2	213.0	176.2	4868.4
40 PERCENTILE	165.5	157.6	195.5	255.8	804.5	1706.7	910.7	302.5	258.5	262.5	237.8	192.4	5593.5
20 PERCENTILE	181.5	197.4	214.5	303.8	950.4	2075.8	1112.6	431.1	300.0	308.0	257.4	201.5	6101.2
MAXIMUM	210.6	225.4	330.3	520.5	1225.4	2433.9	1584.2	549.8	411.5	421.0	294.9	250.7	7221.6
MINIMUM	85.0	[illegible]	124.9	65.0	325.9	695.9	247.6	74.1	103.0	163.9	152.6	125.3	3272.6

1000 REGULATED AND BASELINE PROJ. YIELD

YELLOWSTONE RIVER AT BILLINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	213.7	251.4	545.5	440.8	419.6	151.2	113.0	170.4	153.2	153.0	3635.0
1940	55.5	105.4	155.9	109.1	705.7	1105.8	287.0	74.8	105.5	206.9	163.4	155.9	3279.5
1941	117.9	112.5	130.2	155.5	551.2	599.5	521.2	145.3	380.6	421.6	237.0	222.0	3795.6
1942	161.9	[illegible]	242.5	349.1	739.0	1451.4	643.0	235.4	191.6	231.6	230.5	207.6	5106.2
1943	[illegible]	[illegible]	[illegible]	321.1	784.5	2135.6	1509.4	465.4	300.5	244.0	240.7	192.9	7220.5
1944	[illegible]	[illegible]	[illegible]	145.5	511.4	1690.4	909.6	255.2	234.7	232.5	210.5	144.6	4675.5
1945	[illegible]	127.1	165.4	157.5	454.1	1474.1	1182.7	375.5	245.1	262.5	242.7	170.3	5016.4
1946	200.1	137.9	197.5	325.9	650.5	1225.1	576.0	174.6	200.2	271.2	217.1	161.7	4395.9
1947	162.3	127.0	145.1	272.4	1037.2	1479.2	454.7	356.1	259.0	299.5	245.0	206.6	5600.4
1948	165.2	155.5	149.9	252.4	1050.3	2151.4	714.2	241.9	164.7	208.3	192.3	136.2	5023.3
1949	121.1	155.1	162.5	232.5	459.5	1515.4	522.7	177.3	194.2	244.2	205.8	125.6	4456.2
1950	94.5	117.0	144.4	205.0	524.5	1620.5	1270.9	436.9	274.1	331.5	295.5	251.2	5625.5
1951	174.[illegible]	195.7	232.1	259.7	591.9	1219.9	1055.9	550.5	245.0	316.7	270.6	186.0	5658.0
1952	164.7	153.5	157.5	407.2	1229.6	1600.9	689.0	330.2	196.3	191.8	181.9	168.2	5505.0
1953	173.4	141.0	151.2	164.5	524.5	1455.8	790.1	279.7	164.7	175.0	143.0	174.9	4182.8
1954	125.4	[illegible]	139.9	147.1	641.4	1055.9	501.5	275.9	167.1	189.1	190.4	161.1	4406.3
1955	135.0	114.0	145.0	234.7	448.9	1182.5	569.4	205.4	135.8	185.7	172.6	174.0	3704.2
1956	162.1	165.7	230.6	306.2	1205.2	1901.9	696.3	298.7	196.4	169.9	213.6	176.7	5748.5
1957	102.1	143.3	147.5	185.7	958.6	2233.2	1036.0	285.3	260.3	263.1	238.4	195.3	6086.6
1958	154.0	135.1	159.4	178.9	931.5	1126.9	419.6	193.2	151.6	166.9	200.8	178.5	4020.6
1959	142.2	[illegible]	174.2	214.0	496.3	1940.0	643.6	239.3	180.5	269.0	234.0	195.2	5054.0
1960	119.7	139.5	176.8	207.6	396.2	1162.4	307.0	166.7	116.6	164.5	184.5	152.9	3298.6
1961	137.0	135.5	125.4	65.6	418.0	1105.6	248.5	96.3	261.2	308.6	275.7	197.2	3390.6
1962	145.8	221.9	213.1	357.4	600.7	1719.7	674.2	379.9	279.1	247.6	219.1	168.4	5650.1
1963	134.5	229.9	153.8	181.5	773.2	1781.5	644.3	208.0	223.4	199.9	203.3	155.3	4695.2
1964	147.0	152.7	149.3	200.5	698.5	1707.3	1113.3	317.9	205.9	189.2	207.4	188.0	5277.5
1965	211.1	135.8	174.1	304.4	680.2	2076.4	1426.2	540.0	386.7	355.6	258.0	202.0	6602.5
1966	182.3	172.0	203.9	235.0	605.1	955.4	435.8	184.0	179.4	212.8	218.9	194.1	3981.9
1967	191.[illegible]	154.7	197.1	184.4	675.2	2434.5	1566.9	374.5	225.9	300.1	252.7	198.0	6765.4
1968	166.1	[illegible]	227.9	215.7	465.[illegible]	2021.7	1101.9	541.1	412.0	340.7	277.6	203.1	6199.3
1969	160.1	[illegible]	225.4	361.2	964.[illegible]	1514.7	911.4	256.5	181.0	252.1	228.1	191.4	5246.4
1970	157.7	150.4	155.2	181.3	1005.1	2165.7	990.1	303.2	326.7	302.2	241.3	192.6	6195.5
1971	191.1	227.6	195.0	282.5	889.6	2205.7	1267.1	431.2	375.1	346.9	273.2	203.6	6693.0
1972	164.0	194.5	302.2	235.6	709.0	1947.1	841.6	451.6	377.3	390.7	288.3	203.2	6108.1
1973	145.3	172.1	202.5	289.4	648.5	1245.2	612.2	222.9	307.2	264.9	249.6	201.7	4607.4
1974	192.4	145.1	179.5	274.4	607.4	2425.9	1290.7	465.6	283.3	257.2	248.4	163.9	6557.8
1975	151.5	124.2	214.8	365.0	902.5	1944.3	2251.3	528.0	279.7	0.0	2.5	1.8	6706.5
AVERAGE	[illegible]	[illegible]	[illegible]	247.1	751.0	1507.6	679.9	305.4	238.7	249.0	221.5	177.3	5183.6
MEDIAN	151.[illegible]	[illegible]	187.5	252.4	773.2	1479.2	645.0	279.7	225.4	249.0	225.1	168.0	5106.2
80 PERCENTILE	125.4	127.1	150.2	175.9	495.[illegible]	1126.9	455.0	184.0	164.7	169.2	192.3	155.3	3981.9
60 PERCENTILE	[illegible]	[illegible]	[illegible]	[illegible]	630.2	1515.4	695.3	235.4	196.3	231.5	213.6	176.7	4575.5
40 PERCENTILE	164.0	153.5	196.6	234.9	605.1	1707.3	911.4	303.2	259.0	263.1	239.4	192.9	5600.4
20 PERCENTILE	191.3	[illegible]	213.1	304.4	451.5	2076.4	1113.3	451.6	300.5	303.6	253.0	202.0	6108.1
MAXIMUM	211.1	[illegible]	[illegible]	521.1	1229.6	2434.5	1584.4	550.5	412.0	421.5	295.5	251.2	7220.5
MINIMUM	[illegible]	[illegible]	125.4	65.6	324.5	699.5	248.5	74.8	105.5	164.5	153.2	125.6	3279.5

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECOMMEND AND DUE FROM YELLOWSTON

YELLOWSTONE RIVER AT BILLINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	153.4	102.5	213.2	253.8	644.9	940.2	419.1	150.5	113.1	169.8	152.6	133.3	3626.7
1940	66.1	104.9	130.4	168.5	705.1	1105.2	266.9	74.1	103.0	206.3	162.8	135.4	3272.6
1941	117.4	112.5	129.7	157.9	550.6	898.9	320.5	192.6	380.1	421.0	286.4	221.5	3786.9
1942	181.3	150.2	242.5	346.5	788.4	1450.8	642.3	235.7	191.1	231.2	229.9	207.1	5099.3
1943	161.3	225.0	330.5	520.5	785.7	2135.0	1584.2	462.7	300.0	248.4	230.1	192.4	7221.6
1944	153.5	157.6	178.5	145.2	510.7	1675.8	980.1	234.5	234.2	232.0	210.2	144.1	4868.4
1945	160.1	106.5	165.9	155.7	455.5	1473.5	1182.	372.8	244.6	261.9	242.1	169.8	5009.5
1946	199.5	187.4	197.1	326.3	629.9	1224.5	575.5	178.9	199.7	270.6	216.5	181.2	4389.0
1947	162.3	127.3	194.6	271.6	1035.5	1476.6	959.0	357.4	258.5	290.9	242.4	206.1	5593.5
1948	164.7	130.0	194.4	231.8	1029.7	2130.6	713.5	291.2	164.2	207.7	191.7	135.7	5616.4
1949	120.6	132.6	102.0	287.9	939.3	1317.8	522.0	176.6	193.7	243.6	208.2	125.3	4449.3
1950	89.3	115.5	193.9	205.4	524.0	1628.0	1270.2	436.2	278.6	330.9	294.9	250.7	5618.6
1951	174.3	198.2	231.5	269.1	691.5	1219.3	1053.2	549.8	292.5	316.1	270.2	185.5	5651.1
1952	154.2	157.3	157.0	406.6	1228.4	1600.5	688.3	329.5	195.8	191.2	181.3	167.7	5498.1
1953	172.9	140.5	149.7	163.9	323.9	1453.2	789.4	279.0	164.2	172.4	192.4	174.4	4175.9
1954	122.9	150.7	134.4	195.5	840.3	1066.3	900.8	275.2	166.6	186.5	189.8	160.6	4399.4
1955	135.5	114.3	145.1	234.1	443.3	1181.9	560.7	204.7	135.3	186.1	172.0	173.5	3697.3
1956	161.5	145.2	250.5	307.6	1205.6	1901.3	695.6	298.0	195.9	189.3	213.0	178.2	5741.6
1957	101.5	142.8	185.8	135.1	958.0	2232.6	1035.3	284.6	259.8	262.5	237.8	194.8	6081.7
1958	153.5	15?.0	158.9	178.3	950.9	1126.3	419.1	192.5	151.1	168.3	200.2	178.0	4013.7
1959	141.7	124.7	175.7	213.4	496.2	1939.4	647.9	238.6	180.0	268.4	233.4	194.7	5057.1
1960	119.2	139.0	178.3	207.2	395.6	1161.6	306.3	168.0	116.1	163.9	183.9	152.4	3291.7
1961	136.5	133.0	124.9	83.0	417.4	1105.0	247.8	95.6	260.7	308.0	275.1	196.7	3383.7
1962	145.3	221.4	214.6	355.6	800.1	1719.1	873.5	379.2	278.6	247.2	218.5	187.9	5643.2
1963	133.8	224.4	163.5	180.7	772.6	1780.9	643.6	205.3	222.9	199.3	202.7	154.8	4888.3
1964	145.5	152.2	149.3	199.9	697.9	1706.7	1112.6	317.2	205.4	188.6	206.8	187.5	5270.6
1965	210.5	185.3	173.5	303.8	679.6	2075.8	1427.5	539.3	386.2	355.0	257.4	201.5	6795.6
1966	182.0	171.5	203.4	234.4	804.5	957.8	435.1	183.3	178.9	212.2	218.3	193.6	3975.0
1967	190.9	164.2	195.6	183.8	572.6	2433.9	1568.2	375.6	225.4	299.5	252.1	197.5	6758.5
1968	165.5	222.4	227.4	216.1	464.5	2021.1	1101.2	540.4	411.5	340.1	277.2	202.6	6192.4
1969	179.6	160.1	225.9	360.6	963.4	1314.1	910.7	256.1	181.1	251.5	227.5	190.9	5241.5
1970	157.2	159.9	167.7	181.2	1004.5	2165.1	989.4	302.5	326.2	301.6	241.2	192.1	6186.6
1971	190.6	227.1	196.5	281.9	889.0	2205.1	1266.4	431.1	374.6	348.3	272.6	203.1	6886.1
1972	163.5	199.0	301.7	233.0	708.4	1946.5	840.9	450.9	376.8	390.1	287.7	202.7	6101.2
1973	145.5	171.6	202.1	285.0	648.2	1244.6	611.5	222.2	306.7	264.3	246.0	201.2	4800.5
1974	191.9	147.5	179.0	273.8	606.5	2426.3	1290.0	464.9	282.8	256.6	247.8	183.4	6550.9
1975	151.1	123.7	214.3	305.0	902.0	1943.7	2250.6	527.3	279.2	0.0	1.9	1.3	6700.1
AVERAGE	154.3	157.2	192.1	245.6	750.4	1607.0	879.2	304.7	238.2	248.4	220.9	177.2	5176.7
MEDIAN	151.3	159.0	185.5	231.8	772.5	1476.6	842.3	279.0	222.9	248.4	227.5	187.5	5099.3
80 PERCENTILE	122.9	125.5	149.7	178.3	496.2	1126.3	435.1	183.3	164.2	186.6	191.7	154.8	3975.0
60 PERCENTILE	145.5	140.5	178.3	205.4	679.6	1317.8	695.6	235.7	195.8	231.2	215.0	178.2	4866.4
40 PERCENTILE	163.5	157.3	196.3	253.8	804.5	1706.7	910.7	302.5	258.5	262.5	237.8	192.4	5593.5
20 PERCENTILE	181.3	187.4	214.6	303.6	950.9	2075.8	1112.6	431.1	300.0	308.0	257.4	201.5	6101.2
MAXIMUM	210.5	226.4	330.5	520.5	1228.4	2433.9	1584.2	549.8	411.5	421.0	294.9	250.7	7221.6
MINIMUM	[illegible]	102.5	124.9	83.0	323.9	898.9	247.8	74.1	103.0	163.9	152.6	125.3	3272.6

TONGUE RIVER AT MILES CITY

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL B OPERATION STUDY
2000 RECOMMENDED DEVELOPMENT MINUS BASIF

TONGUE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	12.5	14.0	33.9	15.9	5.0	15.1	5.0	5.0	5.0	17.4	6.0	6.8	142.6
1940	4.5	5.4	7.5	5.0	5.0	5.0	5.0	5.0	5.0	20.4	5.8	5.6	79.4
1941	5.4	5.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	27.6	17.3	16.8	108.5
1942	8.2	4.6	10.3	5.0	5.0	5.0	5.0	5.0	5.0	13.1	18.4	17.6	115.3
1943	9.4	17.2	25.3	22.7	5.0	92.0	5.0	5.0	5.0	8.1	12.4	12.9	223.1
1944	7.9	6.0	20.4	6.6	95.5	215.0	44.5	5.0	5.0	7.5	15.7	11.6	436.4
1945	10.4	7.5	13.6	5.0	5.0	120.6	25.6	5.0	5.0	16.9	16.7	14.6	246.4
1946	14.1	13.4	31.6	16.1	35.2	104.3	9.0	5.0	5.0	29.9	16.9	19.4	300.1
1947	14.1	21.5	67.9	33.6	75.1	87.9	24.1	5.0	5.0	9.0	20.8	13.2	390.3
1948	11.1	15.2	25.5	15.1	51.5	93.5	33.8	5.0	5.0	6.4	19.1	8.3	293.8
1949	7.1	4.0	65.5	5.0	40.7	65.0	5.0	5.0	5.0	11.6	14.5	11.0	240.6
1950	5.5	6.9	9.0	5.9	5.0	5.0	5.0	5.0	5.0	15.0	16.3	12.5	97.2
1951	10.2	10.3	5.0	5.2	5.0	5.0	5.0	5.0	5.0	16.8	17.4	8.3	101.3
1952	7.1	7.5	20.1	65.2	54.5	41.8	5.0	5.0	5.0	7.0	12.0	10.1	243.2
1953	[illegible]	[illegible]	5.0	5.0	5.0	51.3	5.0	5.0	5.0	2.2	10.8	9.1	122.7
1954	7.4	12.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	.4	10.0	9.8	75.5
1955	5.1	4.8	9.6	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	7.5	62.6
1956	7.5	6.5	10.4	9.9	5.0	35.0	5.0	5.0	5.0	0.0	10.1	11.5	110.8
1957	5.5	7.4	6.3	9.2	5.0	57.6	5.0	5.0	5.0	10.7	13.0	8.9	138.8
1958	6.9	5.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	13.0	12.9	80.6
1959	9.7	11.5	74.1	5.5	5.0	20.4	5.0	5.0	5.0	5.7	8.6	11.2	166.8
1960	9.5	6.2	35.7	5.0	5.0	5.0	5.0	5.0	5.0	.3	7.3	5.6	96.5
1961	5.2	9.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	14.7	11.7	7.3	63.6
1962	7.5	20.1	8.7	5.0	5.0	5.0	5.0	5.0	5.0	13.1	11.0	9.7	100.0
1963	9.0	44.8	5.0	5.0	5.0	35.4	5.0	5.0	5.0	5.2	10.8	6.7	142.0
1964	6.9	6.5	5.0	5.0	5.7	125.5	20.5	5.0	5.0	7.5	10.4	12.6	217.8
1965	13.5	23.2	20.9	47.7	45.4	99.1	9.2	5.0	5.0	22.5	10.5	10.9	330.6
1966	13.7	6.0	8.6	5.0	5.0	5.0	5.0	5.0	5.0	7.6	10.9	8.9	86.0
1967	9.5	15.5	9.4	5.0	5.0	91.5	29.5	5.0	5.0	17.0	14.1	12.2	218.8
1968	14.1	45.3	20.3	5.0	11.4	152.3	5.1	5.1	11.4	24.8	18.9	7.2	336.4
1969	13.0	10.4	112.5	61.3	49.3	34.8	17.9	5.0	5.0	17.3	12.2	8.8	347.9
1970	6.2	17.5	5.9	5.0	59.2	150.5	5.0	5.0	5.0	14.6	15.2	13.1	314.3
1971	15.1	105.9	67.0	32.5	49.5	103.0	5.0	5.0	5.0	50.4	21.4	6.2	466.0
1972	9.2	17.7	59.7	17.5	36.5	73.8	5.0	5.0	5.0	18.1	15.2	9.3	274.1
1973	12.1	14.5	6.4	5.0	58.9	107.2	5.0	5.0	5.0	16.1	18.1	7.7	262.6
1974	25.5	20.4	5.0	6.2	43.2	62.3	5.0	5.0	5.0	12.6	17.1	14.5	221.8
1975	33.8	9.2	41.2	19.7	77.3	175.5	92.8	5.0	5.0	5.0	4.6	4.3	473.8
AVERAGE	10.7	15.5	24.2	13.7	24.6	61.5	12.0	5.0	5.2	13.0	13.5	10.4	209.5
MEDIAN	9.2	10.5	9.6	5.0	5.0	41.8	5.0	5.0	5.0	12.6	13.0	9.8	166.8
80 PERCENTILE	6.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.2	10.1	7.5	96.5
60 PERCENTILE	5.2	6.5	6.7	5.0	5.0	20.4	5.0	5.0	5.0	8.1	12.0	8.9	122.7
40 PERCENTILE	9.7	13.4	20.1	6.2	5.0	65.0	5.0	5.0	5.0	14.7	15.2	11.2	223.1
20 PERCENTILE	13.0	17.7	33.7	16.9	49.6	105.0	9.2	5.0	5.0	18.1	17.4	12.9	300.1
MAXIMUM	25.5	105.9	112.5	65.2	95.5	215.0	44.5	5.1	11.4	50.4	21.4	19.4	466.0
MINIMUM	3.5	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	5.6	62.6

TONGUE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	12.6	14.0	35.9	16.9	3.0	12.2	3.0	3.0	3.0	17.0	5.6	6.3	132.7
1940	4.2	5.0	7.5	3.0	3.0	3.0	3.0	3.0	3.0	20.0	5.4	5.1	65.3
1941	5.5	5.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	27.2	16.9	16.3	92.5
1942	7.8	9.2	18.3	3.0	3.0	3.0	3.0	3.0	3.0	12.7	18.0	17.1	101.2
1943	9.0	16.8	28.3	22.7	16.6	108.2	3.0	3.0	3.0	7.7	12.0	12.4	242.8
1944	7.5	5.6	20.4	6.6	97.9	212.4	43.7	3.0	3.0	6.9	15.3	11.1	433.5
1945	10.0	7.1	13.8	4.2	3.3	123.8	25.0	3.0	3.0	16.5	16.3	14.1	240.3
1946	13.7	13.0	31.8	18.0	34.5	103.7	8.2	3.0	3.0	29.5	16.5	18.9	294.0
1947	18.7	21.2	70.2	38.2	77.4	87.3	23.3	3.0	3.0	8.6	20.4	12.7	384.2
1948	10.7	15.8	28.6	17.0	50.9	93.0	33.0	3.0	3.0	6.0	18.7	7.8	287.7
1949	6.7	3.6	68.6	4.5	42.5	62.4	3.0	3.0	3.0	11.2	14.1	10.5	233.2
1950	3.1	6.5	9.0	8.9	3.0	3.0	3.0	3.0	3.0	14.6	15.9	12.0	85.2
1951	9.8	9.9	3.0	6.2	3.0	3.0	3.0	3.0	3.0	18.4	17.0	7.8	87.2
1952	6.7	7.1	30.3	75.1	53.8	41.2	3.0	3.0	3.0	6.6	11.6	9.6	251.0
1953	10.2	8.2	4.9	3.0	3.0	57.4	3.0	3.0	3.0	1.8	10.4	8.6	116.6
1954	7.0	12.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	.0	9.6	9.3	59.5
1955	4.7	4.4	9.6	3.1	3.0	3.0	3.0	3.0	3.0	0.0	5.2	7.0	49.1
1956	7.2	6.1	10.4	9.9	7.4	51.9	3.0	3.0	3.0	0.0	9.7	10.8	122.5
1957	5.2	7.0	6.3	9.2	3.0	61.1	3.0	3.0	3.0	10.3	12.6	8.4	132.3
1958	8.5	5.5	3.5	3.0	3.0	3.0	3.0	3.0	3.0	4.5	12.6	12.4	65.1
1959	9.3	11.1	74.1	5.5	3.7	33.1	3.0	3.0	3.0	5.3	8.2	10.7	170.1
1960	8.9	7.8	35.7	3.0	3.0	3.0	3.0	3.0	3.0	0.0	6.9	5.1	82.5
1961	4.8	9.3	3.0	3.0	3.0	3.0	3.0	3.0	3.0	14.3	11.3	6.8	67.6
1962	6.9	19.7	8.7	3.0	3.0	3.0	3.0	3.0	3.0	12.7	10.6	9.2	85.9
1963	8.6	44.4	4.6	3.0	3.0	67.5	3.0	3.0	3.0	4.8	10.4	6.2	161.6
1964	6.5	7.9	3.0	3.0	3.0	134.5	19.7	3.0	3.0	7.1	10.0	12.1	212.9
1965	13.1	27.8	20.8	51.6	47.7	98.5	8.4	3.0	3.0	22.1	17.9	10.4	324.5
1966	13.3	5.6	8.8	3.0	3.0	3.0	3.0	3.0	3.0	7.2	10.5	8.4	71.9
1967	9.1	15.1	9.4	3.0	3.0	104.2	28.7	3.0	3.0	16.6	13.7	11.7	220.6
1968	18.7	45.4	20.3	3.0	14.8	161.7	4.3	4.3	10.9	24.4	18.5	6.7	333.1
1969	12.6	10.0	112.0	60.9	49.1	34.2	17.1	3.0	3.0	16.9	11.8	8.3	339.1
1970	7.8	17.1	5.9	3.0	72.6	149.9	3.0	3.0	3.0	14.2	14.8	12.6	306.9
1971	14.7	102.3	67.0	36.8	48.9	102.4	3.0	3.0	3.0	50.0	21.0	7.7	459.9
1972	8.8	17.3	59.7	20.7	37.9	73.2	3.0	3.0	3.0	17.7	14.8	8.8	268.0
1973	11.7	13.9	8.4	3.0	63.4	106.6	3.0	3.0	3.0	15.7	17.7	7.2	256.7
1974	25.1	20.0	4.6	9.8	42.5	61.7	3.0	3.0	3.0	12.2	16.7	14.0	215.7
1975	33.4	8.8	41.2	19.7	80.4	174.7	92.0	3.0	3.0	5.0	4.6	4.3	470.2
AVERAGE	10.3	15.4	24.2	13.4	24.3	63.6	10.3	3.0	3.2	12.6	13.1	10.0	203.3
MEDIAN	8.8	9.9	9.6	4.2	3.0	57.4	3.0	3.0	3.0	12.2	12.6	9.3	170.1
80 PERCENTILE	6.5	5.6	4.6	3.0	3.0	3.0	3.0	3.0	3.0	4.8	9.7	7.0	82.5
60 PERCENTILE	7.8	7.9	8.7	3.0	3.0	33.1	3.0	3.0	3.0	7.7	11.6	8.4	122.5
40 PERCENTILE	9.3	13.0	20.3	6.6	14.8	67.5	3.0	3.0	3.0	14.3	14.8	10.7	233.2
20 PERCENTILE	12.6	17.3	35.7	18.0	48.9	104.2	8.4	3.0	3.0	17.7	17.0	12.4	294.0
MAXIMUM	25.1	102.3	112.0	75.1	97.9	212.4	43.7	4.3	10.9	50.0	21.0	18.9	459.9
MINIMUM	3.1	3.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0	0.0	5.2	5.1	49.1

TONGUE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	10.2	11.4	35.4	14.5	3.0	3.5	3.0	3.0	3.0	14.1	2.8	3.4	105.8
1940	1.3	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	17.1	2.6	2.2	48.7
1941	2.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	24.3	14.1	13.4	78.4
1942	4.9	6.7	15.4	3.0	3.0	3.0	3.0	3.0	3.0	9.8	15.2	14.2	84.7
1943	5.1	14.5	25.3	20.3	3.0	36.0	3.0	3.0	3.0	4.8	9.2	9.5	[illegible]
1944	4.5	3.1	17.9	4.2	82.4	208.8	39.6	3.0	3.0	4.0	12.5	8.2	391.4
1945	7.1	4.5	11.3	3.0	3.0	103.0	20.9	3.0	3.0	13.6	13.5	1.2	202.3
1946	10.8	[illegible]	29.3	7.8	31.0	100.1	4.1	3.0	3.0	26.6	13.7	16.0	256.0
1947	15.5	18.7	60.4	35.3	73.9	85.7	19.2	3.0	3.0	5.7	17.6	9.8	346.2
1948	7.8	13.5	25.1	5.8	47.4	39.4	28.9	3.0	3.0	3.1	15.9	4.9	249.7
1949	3.5	1.1	65.1	3.0	30.3	58.6	3.0	3.0	3.0	8.3	11.3	7.6	199.4
1950	[illegible]	4.0	3.5	6.5	3.0	3.0	3.0	3.0	3.0	11.7	13.1	9.1	66.1
1951	5.9	7.4	3.0	3.8	3.0	3.0	3.0	3.0	3.0	15.5	14.2	4.9	70.7
1952	3.5	4.6	17.5	30.9	49.8	37.6	3.0	3.0	3.0	3.7	8.8	6.7	172.6
1953	7.5	[illegible]	3.0	3.0	3.0	35.4	3.0	3.0	3.0	0.0	7.6	5.7	79.6
1954	[illegible]	[illegible]	3.0	3.0	[illegible]	3.0	3.0	3.0	3.0	0.0	6.8	6.4	48.3
1955	[illegible]	[illegible]	[illegible]	3.0	[illegible]	3.0	3.0	3.0	3.0	0.0	2.4	4.1	36.5
[illegible]	[illegible]	[illegible]	7.9	[illegible]	[illegible]	3.0	3.0	3.0	3.0	0.0	6.9	7.9	53.1
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.0	20.4	[illegible]	3.0	3.0	7.4	9.8	5.5	72.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.0	[illegible]	1.6	9.8	9.5	50.5
[illegible]	[illegible]	[illegible]	[illegible]	3.1	[illegible]	[illegible]	[illegible]	3.0	3.0	2.4	5.4	7.8	120.3
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.0	3.0	3.0	3.0	3.0	0.0	4.1	2.2	68.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.2	3.8	46.8
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.0	[illegible]	4.8	[illegible]	[illegible]	69.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	155.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	94.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	286.5
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	55.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	161.2
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.9	230.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	4.3	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	3.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	11.1	177.7
[illegible]	[illegible]	[illegible]	[illegible]	17.5	[illegible]	171.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.8	429.3
AVERAGE	7.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	7.1	166.0
MEDIAN	5.9	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	6.4	120.3
[illegible] PERCENTILE	[illegible]	3.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	3.0	[illegible]	[illegible]	[illegible]	4.1	55.4
[illegible] PERCENTILE	4.9	[illegible]	[illegible]	3.0	[illegible]	[illegible]	3.0	[illegible]	[illegible]	[illegible]	[illegible]	5.5	79.6
[illegible] PERCENTILE	[illegible]	[illegible]	17.5	[illegible]	[illegible]	58.1	[illegible]	[illegible]	3.0	[illegible]	[illegible]	7.8	172.6
[illegible] PERCENTILE	10.2	14.5	35.2	11.4	45.4	95.5	4.5	3.0	3.0	[illegible]	[illegible]	9.5	[illegible]
MAXIMUM	22.2	94.5	108.5	58.0	82.4	208.8	39.6	3.0	3.0	47.1	16.2	16.0	421.9
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2.2	36.5

TONGUE RIVER AT MILES CITY

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	12.5	14.	35.9	16.9	5.0	13.1	5.0	5.0	5.0	17.4	5.0	6.8	142.8
1940	4.5	5.4	7.5	5.0	5.0	5.0	5.0	5.0	5.0	20.4	5.8	5.6	79.4
1941	5.4	5.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	27.6	17.5	10.8	108.5
1942	4.2	4.6	13.5	5.0	5.0	5.0	5.0	5.0	5.0	13.1	16.4	17.6	115.5
1943	4.4	11.	25.5	22.7	5.	42.0	5.0	5.0	5.0	6.1	12.4	12.9	223.1
1944	7.9	[illegible]	20.4	5.5	95.5	213.0	44.5	5.0	5.0	7.5	13.7	11.6	450.4
1945	10.4	7.5	15.5	5.9	5.0	120.8	25.5	5.0	5.0	16.4	16.7	14.6	240.4
1946	14.1	13.4	31.6	15.1	55.2	104.5	9.0	5.0	5.0	29.9	16.9	19.4	300.1
1947	19.1	[illegible]	57.9	[illegible]	75.1	87.9	24.1	5.0	5.0	9.0	20.6	15.2	395.5
1948	11.1	[illegible]	[illegible]	13.1	51.5	93.6	35.6	5.0	5.0	6.4	19.1	6.5	295.6
1949	7.1	[illegible]	65.5	5.0	40.7	65.0	5.0	5.0	5.0	11.6	14.5	11.0	240.6
1950	5.5	5.9	9.0	5.9	5.0	5.0	5.0	5.0	5.0	15.0	16.5	12.5	97.2
1951	10.2	11.5	5.0	5.2	5.0	5.0	5.0	5.0	5.0	18.8	17.4	6.5	101.5
1952	7.1	7.5	20.1	65.2	54.5	41.5	5.0	5.0	5.0	7.0	12.0	10.1	245.2
1953	10.5	[illegible]	5.0	5.0	5.0	51.5	5.0	5.0	5.0	2.2	10.8	9.1	122.7
1954	7.4	12.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	.4	10.0	9.6	75.5
1955	5.1	4.8	9.5	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	7.5	62.6
1956	7.6	6.5	10.4	9.9	5.0	35.0	5.0	5.0	5.0	0.0	10.1	11.5	110.8
1957	5.5	7.4	5.5	9.2	5.0	57.6	5.0	5.0	5.0	10.7	15.0	8.9	138.8
1958	6.9	5.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	13.0	12.9	80.6
1959	9.7	11.5	74.1	5.5	5.0	20.4	5.0	5.0	5.0	5.7	8.6	11.2	166.8
1960	9.5	6.2	55.7	5.0	5.0	5.0	5.0	5.0	5.0	.5	7.5	5.6	98.5
1961	5.2	9.7	5.6	5.0	5.0	5.0	5.0	5.0	5.0	14.7	11.7	7.5	83.6
1962	7.5	20.1	8.7	5.0	5.0	5.0	5.0	5.0	5.0	15.1	11.0	9.7	100.0
1963	9.0	44.5	5.0	5.0	5.0	35.4	5.0	5.0	5.0	5.2	10.6	6.7	142.0
1964	6.9	[illegible]	5.0	5.0	5.0	125.5	20.5	5.0	5.0	7.5	10.4	12.6	217.8
1965	13.5	25.2	20.8	49.7	48.4	99.1	9.2	5.0	5.0	22.5	18.5	10.9	330.6
1966	13.7	5.0	5.6	5.0	5.0	5.0	5.0	5.0	5.0	7.6	10.9	6.9	86.0
1967	9.5	15.5	9.4	5.0	5.0	91.5	27.5	5.0	5.0	17.0	14.1	12.2	218.8
1968	19.1	[illegible]	20.5	5.0	11.4	162.5	5.1	5.1	11.4	24.8	16.9	7.2	356.4
1969	15.0	10.4	112.5	61.5	49.9	54.8	17.4	5.0	5.0	17.5	12.2	6.0	347.9
1970	8.2	17.5	5.9	5.0	69.2	150.5	5.0	5.0	5.0	14.5	15.2	13.1	314.5
1971	15.1	105.9	67.0	32.5	49.6	105.0	5.0	5.0	5.0	50.4	21.4	6.2	466.0
1972	9.2	17.7	59.7	17.5	58.5	75.8	5.0	5.0	5.0	18.1	15.2	9.5	274.1
1973	12.1	14.5	5.4	5.0	55.4	107.2	5.0	5.0	5.0	16.1	15.1	7.7	252.6
1974	25.5	29.4	5.0	5.2	45.2	52.5	5.0	5.0	5.0	12.6	17.1	14.5	221.6
1975	33.3	9.2	41.2	19.7	77.8	175.3	92.6	5.0	5.0	5.0	4.6	4.5	473.6
AVERAGE	14.7	15.6	24.2	13.7	24.6	51.5	12.0	5.0	5.2	13.0	13.5	10.4	209.5
MEDIAN	9.2	10.5	9.5	5.0	5.0	41.8	5.0	5.0	5.0	12.6	13.0	9.6	166.6
80 PERCENTILE	5.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.2	10.1	7.5	96.5
60 PERCENTILE	7.2	6.5	5.7	5.0	5.0	20.4	5.0	5.0	5.0	6.1	12.0	8.9	122.7
40 PERCENTILE	9.7	13.4	20.1	5.2	5.0	65.0	5.0	5.0	5.0	14.7	15.2	11.2	223.1
20 PERCENTILE	15.0	17.7	35.7	16.9	49.6	105.0	9.2	5.0	5.0	16.1	17.4	12.9	300.1
MAXIMUM	25.5	105.9	112.5	65.2	95.5	213.0	44.5	5.1	11.4	50.4	21.4	19.4	465.0
MINIMUM	5.5	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	5.6	62.6

TONGUE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	12.5	14.0	35.4	15.9	5.0	13.1	5.0	5.0	5.0	17.4	6.0	6.8	142.8
1940	4.5	5.4	7.5	5.0	5.0	5.0	5.0	5.0	5.0	20.4	5.8	5.6	79.4
1941	5.4	5.4	5.0	5.0	5.0	5.0	5.0	5.0	5.0	27.6	17.3	16.8	108.5
1942	6.2	7.5	13.5	5.0	5.0	5.0	5.0	5.0	5.0	13.1	18.4	17.6	115.3
1943	9.4	17.0	25.5	22.7	5.0	92.0	5.0	5.0	5.0	8.1	12.4	12.9	225.1
1944	7.9	5.0	20.4	6.6	95.3	213.0	44.5	5.0	5.0	7.3	15.7	11.6	438.4
1945	10.4	7.5	15.8	5.0	5.0	120.6	25.8	5.0	5.0	16.9	16.7	14.6	246.4
1946	14.1	13.4	31.8	16.1	35.2	104.3	9.0	5.0	5.0	29.9	16.9	19.4	300.1
1947	19.1	21.5	67.9	36.6	78.1	87.9	24.1	5.0	5.0	9.0	20.8	13.2	390.3
1948	11.1	16.2	25.5	15.1	51.6	95.5	33.3	5.0	5.0	6.4	19.1	6.3	293.6
1949	7.1	4.0	65.6	5.0	40.7	63.0	5.0	5.0	5.0	11.6	14.5	11.0	240.6
1950	5.5	6.9	9.0	6.9	5.0	5.0	5.0	5.0	5.0	15.0	16.3	12.5	97.2
1951	10.2	10.5	5.0	6.2	5.0	5.0	5.0	5.0	5.0	18.8	17.4	8.3	101.3
1952	7.1	7.5	20.1	58.2	54.5	41.8	5.0	5.0	5.0	7.0	12.0	10.1	243.2
1953	10.5	8.6	5.0	5.0	5.0	51.3	5.0	5.0	5.0	2.2	10.8	9.1	122.7
1954	7.4	12.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	.4	10.0	9.8	75.5
1955	5.1	4.8	9.6	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	7.5	62.6
1956	7.6	6.5	10.4	9.9	5.0	35.0	5.0	5.0	5.0	0.0	10.1	11.3	110.6
1957	5.5	7.4	6.3	9.2	5.0	57.6	5.0	5.0	5.0	10.7	13.0	8.9	136.8
1958	5.9	1.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	13.0	12.9	80.6
1959	9.7	11.5	74.1	5.5	5.0	20.4	5.0	5.0	5.0	5.7	8.6	11.2	166.8
1960	9.3	6.2	35.7	5.0	5.0	5.0	5.0	5.0	5.0	.3	7.3	5.6	96.5
1961	5.2	9.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	14.7	11.7	7.3	83.6
1962	7.3	20.1	8.7	5.0	5.0	5.0	5.0	5.0	5.0	13.1	11.0	9.7	100.0
1963	9.0	44.8	5.0	5.0	5.0	35.4	5.0	5.0	5.0	5.2	10.8	6.7	142.0
1964	6.9	6.3	5.0	5.0	5.0	125.5	20.5	5.0	5.0	7.5	10.4	12.6	217.8
1965	13.5	26.2	20.8	49.7	46.4	99.1	9.2	5.0	5.0	22.5	18.3	10.9	330.6
1966	13.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	7.6	10.9	8.9	86.0
1967	9.5	15.5	9.4	5.0	5.0	91.5	24.5	5.0	5.0	17.0	14.1	12.2	218.8
1968	19.1	45.5	27.5	5.0	18.4	162.3	5.1	5.1	11.4	24.8	18.9	7.2	336.4
1969	15.0	11.4	112.5	51.3	49.0	34.8	17.9	5.0	5.0	17.3	12.2	6.8	347.9
1970	6.2	17.5	5.9	5.0	69.2	150.5	5.0	5.0	5.0	14.6	15.2	13.1	314.3
1971	15.1	103.9	67.0	32.5	49.5	103.0	5.0	5.0	5.0	50.4	21.4	8.2	466.0
1972	9.2	17.7	59.7	17.5	38.5	73.8	5.0	5.0	5.0	18.1	15.2	9.3	274.1
1973	12.1	14.5	5.4	5.0	58.4	107.2	5.0	5.0	5.0	16.1	16.1	7.7	262.6
1974	25.5	20.4	5.0	6.2	43.2	52.3	5.0	5.0	5.0	12.6	17.1	14.5	221.6
1975	33.3	9.2	41.2	19.7	77.8	175.3	92.8	5.0	5.0	5.0	4.6	4.3	473.8
AVERAGE	10.7	15.6	24.2	13.7	24.6	61.5	12.0	5.0	5.2	13.0	13.5	10.4	209.5
MEDIAN	9.2	11.5	9.0	5.0	5.0	41.8	5.0	5.0	5.0	12.6	13.0	9.8	166.8
80 PERCENTILE	5.9	6.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.2	10.1	7.5	96.5
60 PERCENTILE	7.2	8.3	5.7	5.0	5.0	20.4	5.0	5.0	5.0	8.1	12.0	8.9	122.7
40 PERCENTILE	9.7	13.4	20.1	6.2	5.0	63.0	5.0	5.0	5.0	14.7	15.2	11.2	225.1
20 PERCENTILE	13.0	17.7	35.7	16.9	49.6	103.0	9.2	5.0	5.0	16.1	17.4	12.9	300.1
MAXIMUM	25.5	103.9	112.5	66.2	95.3	213.0	44.5	5.1	11.4	50.4	21.4	19.4	466.0
MINIMUM	5.5	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	5.6	62.6

[illegible] SECTION 13A ENERGY ASSESSMENT
[illegible]

TONGUE RIVER AT MILES CITY

[illegible]	[illegible]	[illegible]	[illegible]	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15.1	5.0	5.0	5.0	17.4	6.0	6.3	142.0
1940	[illegible]	[illegible]	7.5	5.0	5.0	5.0	5.0	5.0	5.0	20.4	5.8	5.6	79.4
1941	5.9	[illegible]	5.0	5.0	5.0	5.0	5.0	5.0	5.0	27.6	17.5	16.8	108.5
1942	[illegible]	[illegible]	15.5	5.0	5.0	5.0	5.0	5.0	5.0	15.1	16.4	17.6	115.5
1943	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	42.0	5.0	5.0	5.0	8.1	12.4	12.9	225.1
1944	[illegible]	[illegible]	[illegible]	[illegible]	45.5	215.0	44.5	5.0	5.0	7.5	13.7	11.6	450.4
1945	10.4	7.5	[illegible]	5.0	5.0	120.6	25.8	5.0	5.0	16.9	16.7	14.6	240.4
1946	14.1	15.4	51.5	15.1	55.2	104.5	9.0	5.0	5.0	29.9	16.9	19.4	300.1
1947	19.1	21.5	67.9	55.6	75.1	97.9	24.1	5.0	5.0	9.0	20.8	15.2	390.5
1948	11.1	[illegible]	25.5	15.1	51.5	95.0	55.0	5.0	5.0	6.4	19.1	6.3	295.8
1949	7.1	[illegible]	[illegible]	5.0	40.7	65.0	5.0	5.0	5.0	11.5	14.5	11.0	240.6
1950	[illegible]	5.9	9.1	[illegible]	[illegible]	5.0	5.0	5.0	5.0	15.0	16.5	12.5	97.2
1951	10.2	10.5	5.0	[illegible]	[illegible]	5.0	5.0	5.0	5.0	16.5	17.4	8.3	101.5
1952	7.1	7.5	20.1	55.2	54.5	41.8	5.0	5.0	5.0	7.0	12.0	10.1	245.2
1953	[illegible]	.5	5.0	5.0	5.0	51.5	5.0	5.0	5.0	2.2	10.8	9.1	122.7
1954	7.9	[illegible]	[illegible]	5.0	5.0	5.0	5.0	5.0	5.0	.4	10.0	9.8	75.5
1955	5.1	4.3	9.5	5.0	[illegible]	5.0	5.0	5.0	5.0	0.0	5.6	7.5	62.0
1956	7.5	5.0	10.4	9.9	5.0	55.0	5.0	5.0	5.0	0.0	10.1	11.3	110.8
1957	5.5	7.4	[illegible]	9.2	5.0	57.6	5.0	5.0	5.0	10.7	15.0	8.9	150.8
1958	[illegible]	[illegible]	5.0	5.0	[illegible]	5.0	5.0	5.0	5.0	4.9	15.0	12.9	80.6
1959	9.7	11.5	74.1	5.5	5.0	20.4	5.0	5.0	5.0	5.7	5.6	11.2	160.8
1960	9.5	[illegible]	35.7	5.0	[illegible]	5.0	5.0	5.0	5.0	.3	7.3	5.6	96.5
1961	5.2	4.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	14.7	11.7	7.3	85.0
1962	7.5	[illegible]	[illegible]	5.0	5.0	5.0	5.0	5.0	5.0	13.1	11.6	9.7	100.0
1963	9.0	[illegible]	5.0	5.0	[illegible]	55.4	5.0	5.0	5.0	5.2	10.6	6.7	142.0
1964	5.9	.5	5.0	5.0	5.0	125.5	20.5	5.0	5.0	7.5	19.4	12.6	217.8
1965	15.5	[illegible]	23.8	44.7	46.4	94.1	9.2	5.0	5.0	22.5	18.5	10.9	330.8
1966	15.7	5.0	5.5	5.0	5.0	5.0	5.0	5.0	5.0	7.6	10.9	6.9	86.0
1967	9.5	15.5	9.1	5.0	5.0	91.5	24.5	5.0	5.0	17.0	14.1	12.2	215.8
1968	19.1	[illegible]	20.5	5.0	11.4	152.5	5.1	5.1	11.4	24.5	18.9	7.2	350.4
1969	15.0	[illegible]	112.5	[illegible]	[illegible]	54.8	17.9	5.0	5.0	17.5	12.2	6.8	347.9
1970	6.2	17.5	5.9	5.0	69.2	150.5	5.0	5.0	5.0	14.6	15.2	13.1	314.5
1971	15.1	[illegible]	67.0	52.5	79.5	105.0	5.0	5.0	5.0	50.4	21.4	8.2	466.0
1972	4.2	17.7	59.7	17.5	55.6	75.8	5.0	5.0	5.0	18.1	15.2	9.3	274.1
1973	12.1	[illegible]	[illegible]	5.0	55.4	107.2	5.0	5.0	5.0	16.1	18.1	7.7	262.8
1974	25.5	[illegible]	5.0	6.2	45.2	62.5	5.0	5.0	5.0	12.6	17.1	14.5	221.6
1975	55.5	4.2	41.2	19.7	77.5	175.3	92.8	5.0	5.0	5.0	4.6	4.3	475.8
[illegible]	[illegible]	[illegible]	[illegible]	15.7	24.6	61.5	12.0	5.0	5.2	15.0	15.5	10.4	209.5
[illegible]	[illegible]	[illegible]	[illegible]	5.0	5.0	31.8	5.0	5.0	5.0	12.5	15.0	9.8	166.5
[illegible] PERCENT [illegible]	[illegible]	[illegible]	[illegible]	5.0	5.0	5.0	5.0	5.0	5.0	5.2	10.1	7.5	96.5
[illegible] PERCENT [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.0	20.4	5.0	5.0	5.0	6.1	12.0	8.9	122.7
[illegible] PERCENT [illegible]	4.7	15.4	[illegible]	5.2	5.0	65.0	5.0	5.0	5.0	14.7	15.2	11.2	225.1
[illegible] PERCENT [illegible]	[illegible]	17.7	55.7	15.9	49.5	105.0	9.2	5.0	5.0	18.1	17.4	12.9	300.1
[illegible]	[illegible]	[illegible]	[illegible]	55.2	45.5	215.0	44.5	5.1	11.4	50.4	21.4	19.4	466.0
[illegible]	[illegible]	[illegible]	5.0	5.0	5.0	5.0	5.0	5.0	5.0	[illegible]	5.6	5.6	62.0

NRPC SECTION 13A ENERGY ASSESSMENT
2000 RECOMEND AND DUE FROM YELLOWSTON

TONGUE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	12.5	14.0	35.9	16.9	5.0	13.1	5.0	5.0	5.0	17.4	6.0	6.8	142.8
1940	4.5	5.4	7.5	5.0	5.0	5.0	5.0	5.0	5.0	20.4	5.8	5.6	79.4
1941	5.9	5.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	27.6	17.3	16.8	108.5
1942	6.2	9.0	15.5	5.0	5.0	5.0	5.0	5.0	5.0	13.1	16.4	17.6	115.5
1943	9.4	17.2	28.3	22.7	5.0	92.0	5.0	5.0	5.0	6.1	12.4	12.9	225.1
1944	7.9	5.0	20.4	5.6	95.3	215.0	44.5	5.0	5.0	7.3	15.7	11.6	438.4
1945	10.4	7.5	13.8	5.0	5.0	120.6	25.8	5.0	5.0	16.9	16.7	14.6	246.4
1946	14.1	13.4	31.8	15.1	35.2	104.5	9.0	5.0	5.0	29.9	16.9	19.4	300.1
1947	19.1	21.6	67.9	38.6	78.1	87.9	24.1	5.0	5.0	9.0	20.8	13.2	390.3
1948	11.1	16.2	25.6	15.1	51.5	93.6	33.6	5.0	5.0	6.4	19.1	8.3	293.8
1949	7.1	4.0	65.6	5.0	40.7	63.0	5.0	5.0	5.0	11.6	14.5	11.0	240.6
1950	3.5	6.9	9.0	6.9	5.0	5.0	5.0	5.0	5.0	15.0	16.3	12.5	97.2
1951	10.2	10.3	5.0	6.2	5.0	5.0	5.0	5.0	5.0	18.8	17.4	8.3	101.3
1952	7.1	7.5	20.1	68.2	54.5	41.8	5.0	5.0	5.0	7.0	12.0	10.1	243.2
1953	10.5	5.6	5.0	5.0	5.0	51.3	5.0	5.0	5.0	2.2	10.8	9.1	122.7
1954	7.4	12.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	.4	10.0	9.8	75.5
1955	5.1	4.5	9.6	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	7.5	62.6
1956	7.6	5.5	10.4	9.9	5.0	35.0	5.0	5.0	5.0	0.0	10.1	11.3	110.8
1957	5.6	7.4	6.5	9.2	5.0	57.6	5.0	5.0	5.0	10.7	13.0	8.9	138.8
1958	5.9	5.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.9	13.0	12.9	80.6
1959	9.7	11.5	74.1	5.5	5.0	20.4	5.0	5.0	5.0	5.7	8.6	11.2	166.8
1960	9.3	8.2	35.7	5.0	5.0	5.0	5.0	5.0	5.0	.3	7.3	5.6	96.5
1961	5.2	9.7	5.0	5.0	5.0	5.0	5.0	5.0	5.0	14.7	11.7	7.3	83.6
1962	7.3	20.1	8.7	5.0	5.0	5.0	5.0	5.0	5.0	13.1	11.0	9.7	100.0
1963	9.0	44.6	5.0	5.0	5.0	35.4	5.0	5.0	5.0	5.2	10.8	6.7	142.0
1964	6.9	8.3	5.0	5.0	5.0	126.5	20.5	5.0	5.0	7.5	10.4	12.6	217.8
1965	13.5	28.2	20.8	49.7	48.4	99.1	9.2	5.0	5.0	22.5	18.3	10.9	330.6
1966	13.7	6.0	5.8	5.0	5.0	5.0	5.0	5.0	5.0	7.6	10.9	8.9	86.0
1967	9.5	15.5	9.4	5.0	5.0	91.5	29.5	5.0	5.0	17.0	14.1	12.2	218.8
1968	19.1	45.3	20.3	5.0	11.4	162.3	5.1	5.1	11.4	24.6	16.9	7.2	336.4
1969	13.0	10.4	112.5	61.3	49.5	34.8	17.9	5.0	5.0	17.3	12.2	6.8	347.9
1970	6.2	17.5	5.9	5.0	69.2	150.5	5.0	5.0	5.0	14.6	15.2	13.1	314.3
1971	15.1	103.9	67.0	32.5	49.6	103.0	5.0	5.0	5.0	50.4	21.4	8.2	466.0
1972	9.2	17.7	59.7	17.5	35.5	75.8	5.0	5.0	5.0	18.1	15.2	9.3	274.1
1973	12.1	14.3	5.4	5.0	58.9	107.2	5.0	5.0	5.0	16.1	18.1	7.7	262.6
1974	25.5	20.4	5.0	6.2	43.2	62.3	5.0	5.0	5.0	12.5	17.1	14.5	221.6
1975	33.5	9.2	41.2	19.7	77.6	175.3	92.8	5.0	5.0	5.0	4.5	4.3	473.8
AVERAGE	10.7	15.6	24.2	13.7	23.5	61.5	12.0	5.0	5.2	13.0	13.5	10.4	209.5
MEDIAN	9.2	10.3	9.5	5.0	5.0	41.8	5.0	5.0	5.0	12.5	13.0	9.8	166.8
80 PERCENTILE	5.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.2	10.1	7.5	96.5
60 PERCENTILE	5.2	8.3	8.7	5.0	5.0	20.4	5.0	5.0	5.0	8.1	12.0	8.9	122.7
40 PERCENTILE	9.7	13.4	20.1	5.2	5.0	65.0	5.0	5.0	5.0	14.7	15.2	11.2	223.1
20 PERCENTILE	13.0	17.7	35.7	16.9	49.6	103.0	9.2	5.0	5.0	18.1	17.4	12.9	300.1
MAXIMUM	25.5	103.9	112.5	65.2	95.3	215.0	44.5	5.1	11.4	50.4	21.4	19.4	466.0
MINIMUM	3.5	4.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.6	5.6	62.6

YELLOWSTONE RIVER AT MILES CITY

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL B OPERATION STUDY
2000 RECOMEND DEVELOPMENT MINUS BASIN

YELLOWSTONE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	375.3	267.4	465.3	402.8	785.4	1170.5	450.1	172.0	138.2	354.1	335.1	305.5	5210.0
1940	176.4	[illegible]	261.9	280.7	547.5	1214.1	192.2	3.3	117.8	446.1	306.9	294.3	4217.8
1941	225.5	241.1	350.5	350.5	644.1	1004.8	328.7	234.4	635.8	717.3	507.8	427.5	5631.0
1942	465.2	465.5	644.5	555.6	959.1	1657.6	961.6	516.5	299.7	451.2	434.6	395.9	7605.0
1943	347.1	517.1	633.6	420.0	959.4	2513.3	2045.1	613.1	447.9	474.6	462.0	411.3	10628.1
1944	415.5	[illegible]	624.9	455.0	835.7	2514.6	1433.3	367.1	374.7	452.2	427.6	320.3	8703.5
1945	413.9	591.9	551.6	521.0	526.4	1702.2	1556.5	510.0	414.4	556.7	502.1	365.5	7815.0
1946	485.7	448.5	525.6	459.9	716.4	1443.6	590.9	237.8	376.6	523.9	443.5	361.7	6614.2
1947	523.7	529.7	573.6	624.9	1274.2	1752.4	1420.3	465.5	408.7	575.3	515.1	449.2	8710.7
1948	459.2	439.9	639.1	457.0	1047.0	2440.8	997.4	365.1	250.9	423.9	436.9	278.4	8235.7
1949	286.2	341.4	616.4	479.0	479.4	1483.2	570.6	210.0	308.3	451.0	427.8	276.2	6430.1
1950	509.4	572.5	690.3	535.6	595.7	1679.5	1419.5	597.7	459.8	544.1	548.6	493.4	8548.0
1951	452.2	471.7	681.2	483.5	901.5	1416.2	1410.6	743.8	520.3	611.1	547.9	447.2	8696.9
1952	453.7	462.5	655.2	672.0	1383.3	1748.2	790.1	403.2	321.3	405.9	390.9	354.9	8024.1
1953	409.0	559.5	415.5	525.1	428.5	1669.6	790.1	505.2	232.7	565.9	388.5	401.0	6086.2
1954	245.7	331.4	505.5	544.9	695.5	1060.3	920.5	504.5	229.2	390.6	424.0	371.3	5826.6
1955	260.3	276.0	273.8	507.3	598.5	1240.7	550.8	139.8	165.7	382.8	361.3	400.7	5160.7
1956	325.9	307.3	559.6	485.1	1169.0	2080.9	672.7	315.1	292.4	376.0	427.9	328.1	7316.2
1957	323.0	356.1	465.9	532.9	1167.7	2636.2	1373.1	573.6	451.3	502.7	505.6	429.0	9130.0
1958	415.3	599.3	449.3	339.7	959.5	1334.2	504.0	194.7	215.5	364.5	377.7	319.5	5873.7
1959	541.5	337.1	737.4	304.4	557.2	1855.3	820.6	226.5	254.9	477.0	423.0	446.0	6845.9
1960	249.5	293.6	460.0	305.5	444.4	1130.0	159.7	104.2	172.0	329.0	379.7	279.0	4355.6
1961	272.0	285.5	261.8	144.4	327.9	1109.2	97.7	0.0	365.6	554.8	533.1	344.6	4296.5
1962	299.1	444.5	445.4	493.7	687.7	1855.7	1122.9	443.1	423.8	503.7	441.3	394.5	7753.4
1963	355.3	561.6	451.6	343.0	911.2	1947.7	730.0	242.6	374.7	405.6	436.5	340.8	7178.6
1964	399.1	411.1	373.8	445.5	678.0	2075.3	1483.4	393.2	369.4	407.3	427.6	387.5	8058.0
1965	510.0	491.1	514.6	600.8	1023.5	2360.5	1946.0	687.9	627.2	657.3	436.2	415.6	10470.7
1966	383.3	375.9	544.1	357.1	687.5	983.3	301.1	98.1	178.2	343.6	400.0	399.4	5061.6
1967	346.9	329.9	350.4	398.0	752.7	2243.2	2316.6	532.8	396.5	535.6	511.7	494.3	9210.4
1968	625.4	652.3	635.2	411.4	605.4	2315.1	1246.5	598.3	607.1	617.4	549.6	434.4	9331.2
1969	525.2	461.6	855.4	562.9	1051.1	1320.5	1081.7	389.4	320.8	467.1	435.9	455.4	7950.0
1970	492.5	492.1	402.5	502.4	1149.8	2301.4	1562.6	591.3	404.7	516.5	487.0	450.7	8753.7
1971	555.9	960.8	785.8	816.4	1191.4	2372.2	1441.2	556.8	526.7	741.3	593.8	497.9	11039.3
1972	502.9	546.2	1075.0	609.1	965.5	2007.5	945.9	512.7	504.8	659.7	630.7	396.7	9356.8
1973	527.5	531.6	527.1	507.4	1115.9	1515.4	660.6	385.0	490.9	590.5	678.2	522.2	8051.5
1974	551.2	517.9	554.1	624.6	834.8	2527.3	1613.0	558.0	457.1	529.1	592.5	466.6	9786.2
1975	554.8	487.3	679.6	591.4	1305.2	2105.6	2528.7	727.1	403.5	6.1	13.3	10.3	9403.9
AVERAGE	393.3	425.7	547.2	475.5	869.3	1780.5	1050.0	370.2	365.8	461.4	452.5	362.8	7599.3
MEDIAN	397.1	391.9	527.1	457.0	687.7	1702.2	945.9	367.1	374.7	474.8	436.9	396.7	7815.0
80 PERCENTILE	256.2	307.5	373.5	339.7	596.5	1214.1	504.0	194.7	229.2	382.8	390.9	320.3	5631.0
60 PERCENTILE	345.9	356.1	465.3	402.8	786.4	1515.4	790.1	304.5	320.8	451.0	427.9	365.5	7178.6
40 PERCENTILE	415.5	444.5	554.1	485.5	959.8	1855.3	1122.9	391.3	404.7	516.5	462.0	411.3	8058.0
20 PERCENTILE	492.5	492.1	655.2	562.9	1051.1	2315.1	1433.3	532.8	459.8	590.5	533.1	449.2	9130.0
MAXIMUM	625.4	960.8	1075.0	620.0	1383.3	2636.2	2316.6	743.8	635.8	741.3	678.2	522.2	11039.3
MINIMUM	176.4	241.1	261.8	144.4	327.9	983.3	97.7	0.0	117.8	329.0	306.9	276.2	4217.8

YELLOWSTONE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT
1939	372.4	266.1	464.9	401.3	782.6	1167.5	445.8	167.7	134.6	352.2	331.2	301.6	5187.0
1940	176.5	252.9	280.5	277.3	643.7	1210.1	187.9	0.0	114.2	444.2	305.0	292.4	4184.7
1941	226.9	239.4	326.8	327.1	640.3	1000.8	324.4	230.1	632.2	715.4	505.9	425.6	5595.0
1942	466.3	463.6	642.9	535.4	955.3	1663.8	957.3	314.2	296.1	449.3	432.7	392.0	7568.0
1943	395.2	615.4	837.2	818.5	949.6	2527.5	2088.8	608.8	444.3	472.9	460.1	409.4	10627.8
1944	413.4	375.1	628.5	454.5	836.4	2612.0	1430.2	362.8	371.1	450.3	425.7	318.4	8678.6
1945	412.0	390.2	550.2	319.6	522.9	1703.3	1535.4	505.7	410.8	554.8	500.2	383.6	7788.0
1946	483.9	446.8	524.2	460.4	714.0	1441.0	587.8	233.5	373.0	522.0	441.6	359.8	6588.[illegible]
1947	321.8	328.0	574.5	623.0	1291.8	1729.8	1417.2	459.2	405.1	573.4	513.2	447.3	8684.5
1948	457.3	438.2	637.7	457.5	1044.6	2438.2	994.3	360.8	247.3	422.0	435.0	276.5	8209.5
1949	284.3	339.7	615.0	477.1	979.9	1480.6	566.3	205.7	304.7	449.1	425.9	274.3	6402.7
1950	307.5	370.8	688.9	535.1	592.9	1675.5	1415.2	593.4	456.2	642.2	546.7	491.5	8315.0
1951	460.3	470.0	677.7	481.8	897.7	1412.2	1406.3	739.5	516.7	609.2	546.0	445.3	8662.8
1952	451.8	460.6	666.9	677.4	1380.9	1745.6	785.8	398.9	317.7	404.0	389.0	333.0	8011.8
1953	407.1	357.8	413.8	319.7	424.5	1673.6	785.8	298.9	229.1	364.0	386.6	399.1	6060.0
1954	246.8	329.7	302.0	341.5	891.7	1056.3	916.3	300.2	225.6	388.9	422.1	369.4	5790.6
1955	258.4	274.3	277.4	504.0	594.8	1236.7	546.5	135.5	160.1	381.3	359.4	398.8	5127.2
1956	322.0	305.6	538.4	481.6	1169.6	2095.8	668.4	310.8	288.8	374.5	426.0	326.2	7307.7
1957	321.1	364.4	465.5	531.4	1163.9	2639.7	1368.8	369.3	447.7	500.8	503.7	427.1	9103.4
1958	413.4	397.5	446.9	336.3	955.8	1330.2	499.7	190.4	211.9	362.6	375.8	317.6	5838.2
1959	339.7	335.4	736.0	367.9	554.1	1865.9	816.3	222.2	251.3	475.1	421.1	444.1	6829.2
1960	247.5	291.9	464.6	365.1	440.6	1126.0	135.4	99.9	168.4	327.2	377.8	277.1	4321.6
1961	270.1	283.8	258.3	141.0	324.1	1105.2	93.4	0.0	362.0	552.9	531.2	342.7	4264.8
1962	297.2	442.8	444.0	490.3	883.9	1849.7	1118.6	438.8	420.2	501.8	439.4	392.6	7719.3
1963	381.4	559.9	450.0	389.6	907.4	1977.8	725.7	238.3	371.1	403.7	434.4	338.9	7178.2
1964	397.2	409.4	375.3	442.9	874.2	2082.3	1480.3	388.9	365.8	405.4	425.7	385.6	8033.1
1965	508.1	489.4	513.2	801.3	1021.2	2357.7	1942.9	683.6	623.6	655.4	434.3	413.7	10444.5
1966	381.4	374.2	542.7	363.7	683.7	979.3	296.8	93.8	174.6	341.7	398.1	397.5	5027.5
1967	345.0	328.2	349.0	394.6	748.9	2253.9	2315.5	528.5	392.7	533.7	509.8	492.4	9192.2
1968	624.5	680.6	634.8	408.0	607.9	2312.5	1243.4	595.2	605.1	615.5	547.7	432.5	9307.9
1969	524.3	479.9	854.5	561.0	1048.7	1317.9	1078.6	385.1	317.2	465.2	435.0	453.5	7921.1
1970	490.7	490.4	401.1	299.0	1151.3	2298.8	1358.3	387.0	401.1	514.6	485.1	448.8	8726.3
1971	555.0	957.9	782.4	819.3	1189.0	2369.6	1436.9	552.5	523.1	739.4	591.9	496.0	11013.1
1972	501.0	546.5	1071.6	610.7	963.2	2004.9	941.6	508.4	501.2	657.8	628.8	394.8	9330.6
1973	525.7	529.9	525.7	504.0	1119.7	1510.8	656.3	380.7	487.3	588.6	676.3	520.3	8025.3
1974	529.3	516.2	552.3	626.6	832.4	2524.7	1608.7	533.7	453.5	527.2	590.6	464.7	9760.0
1975	552.9	485.5	678.2	579.9	1303.9	2104.0	2525.6	722.8	399.9	7.0	11.9	8.8	9380.6
AVERAGE	396.4	424.0	545.7	473.6	867.2	1780.6	1046.0	366.1	362.3	479.6	450.6	380.9	7573.2
MEDIAN	395.2	390.2	525.7	457.5	883.9	1703.3	941.6	362.8	371.1	472.9	435.0	394.8	7788.8
80 PERCENTILE	284.3	305.6	375.3	336.3	594.8	1210.1	499.7	190.4	225.6	381.3	389.0	318.4	5595.0
60 PERCENTILE	345.0	364.4	464.9	401.3	782.6	1510.8	785.8	300.2	317.2	449.1	426.0	383.6	7178.2
40 PERCENTILE	413.4	442.8	552.3	481.8	949.6	1865.9	1118.6	387.0	401.1	514.6	460.1	409.4	8033.1
20 PERCENTILE	490.7	490.4	666.9	561.0	1048.7	2312.5	1430.2	528.5	456.2	588.6	531.2	447.3	9103.4
MAXIMUM	624.5	957.9	1071.6	819.3	1380.9	2639.7	2315.5	739.5	632.2	739.4	676.3	520.3	11013.1
MINIMUM	176.5	239.4	258.3	141.0	324.1	979.3	93.4	0.0	114.2	327.2	305.0	274.3	4184.7

2000 RECOMEND AND DUE DEVELOPMENT

YELLOWSTONE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	370.4	264.4	462.9	399.4	785.2	1159.5	440.6	160.5	135.2	349.9	328.9	294.2	5168.0
1940	174.1	250.0	279.5	277.6	644.5	1210.6	186.7	0.0	114.6	441.8	302.7	290.0	4174.3
1941	224.5	237.5	327.4	327.6	640.9	1001.5	325.2	230.9	632.6	715.1	503.6	423.2	5588.0
1942	465.9	461.5	640.9	535.9	955.9	1664.5	958.1	315.0	296.7	447.0	430.4	389.6	7559.4
1943	592.3	613.5	655.2	510.6	935.6	2456.1	2089.5	609.6	444.9	470.6	457.8	407.0	10530.1
1944	411.0	373.0	525.5	452.6	821.5	2609.2	1426.9	365.6	371.7	446.0	423.4	316.0	8643.5
1945	409.0	380.1	544.2	513.9	523.2	1688.3	1532.1	506.5	411.4	552.5	497.9	381.2	7757.9
1946	481.4	444.7	522.2	450.7	711.1	1436.2	584.5	234.3	373.6	519.7	439.3	357.4	6557.1
1947	519.4	325.9	565.2	620.7	1288.9	1727.0	1415.9	460.0	405.7	571.1	510.9	444.9	8653.6
1948	454.9	436.1	635.7	447.6	1041.7	2435.4	991.0	361.6	247.9	419.7	432.7	274.1	8178.6
1949	261.9	337.5	613.0	475.1	968.3	1477.8	567.1	206.5	305.5	445.6	423.6	271.9	6375.9
1950	305.1	360.7	680.9	533.2	593.5	1676.2	1416.0	594.2	456.8	639.9	544.4	489.1	8304.0
1951	457.9	467.9	678.3	479.9	698.3	1412.9	1407.1	740.3	517.3	606.9	543.7	442.9	8053.3
1952	444.4	453.5	654.6	633.6	1377.6	1742.8	786.5	399.7	516.3	401.7	386.7	330.6	7940.4
1953	414.7	355.7	412.4	32[illegible].2	425.1	1652.5	786.6	299.7	229.7	362.7	384.3	396.7	6030.2
1954	[illegible].4	32[illegible].6	502.6	342.[illegible]	892.5	1057.0	917.1	301.0	226.2	389.4	419.5	367.[illegible]	5785.4
1955	57.2	272.[illegible]	273.4	504.4	593.4	1237.4	547.3	136.5	160.7	381.6	357.1	396.4	5121.7
1956	314.5	313.5	336.4	479.7	1165.8	2047.7	669.2	311.6	299.4	375.0	423.7	323.8	7245.4
1957	418.7	362.3	463.5	529.5	1164.5	2599.6	1364.6	370.1	446.3	498.5	501.4	424.7	9050.7
1958	41[illegible]	39[illegible]	445.9	330.8	456.4	1330.9	500.5	191.2	212.5	360.3	373.5	315.2	5830.7
1959	[illegible]	333.5	334.[illegible]	365.[illegible]	554.[illegible]	1835.6	617.1	225.0	251.9	472.8	416.6	441.7	6786.5
1960	245.2	289.8	462.6	365.6	441.2	1126.7	135.2	100.7	169.0	327.7	375.5	274.7	4314.9
1961	267.7	281.7	258.9	141.5	324.7	1105.9	94.2	0.0	359.6	550.3	526.6	340.2	4253.2
1962	294.7	440.7	442.[illegible]	490.8	384.5	1650.4	1119.4	439.6	42[illegible]	499.5	437.1	390.2	7709.7
1963	379.[illegible]	[illegible]	44[illegible]	330.1	906.[illegible]	1914.[illegible]	726.5	239.1	371.[illegible]	401.4	432.1	336.5	7105.1
1964	394.[illegible]	[illegible]	375.[illegible]	485.4	574.5	2043.6	1477.[illegible]	389.[illegible]	365.4	403.1	425.4	385.2	7982.8
1965	375.[illegible]	487.3	511.2	791.6	1018.3	2354.9	1939.6	684.[illegible]	624.2	653.1	432.[illegible]	411.3	10413.[illegible]
1966	37[illegible]	37[illegible]	[illegible]	35[illegible]	684.3	990.0	297.6	94.[illegible]	175.2	[illegible]	39[illegible]	395.1	[illegible]
1967	342.[illegible]	32[illegible]	34[illegible]	39[illegible]	749.5	2215.8	2312.[illegible]	529.[illegible]	39[illegible].3	[illegible]	507.5	490.0	9139.[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]1.1	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]6.4	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].1	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]26.5	392.[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	674.[illegible]	517.9	[illegible]994.4
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]88.3	462.3	97[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible].9	6.8	93[illegible]
AVERAGE	[illegible]	[illegible]21.[illegible]	[illegible].7	[illegible]70.5	683.5	1759.5	10[illegible]5.7	360.[illegible]	362.6	477.6	[illegible]46.2	378.5	7543.[illegible]
MEDIAN	[illegible]	38[illegible].1	[illegible]23.7	450.[illegible]	634.5	1080.5	942.4	363.6	371.7	47[illegible].6	432.7	392.4	7757.9
[illegible] PERCENTILE	[illegible]	3[illegible]3.5	375.9	335.8	595.4	1210.5	500.5	191.2	226.2	381.6	356.7	316.0	5588.0
[illegible] PERCENTILE	342.5	362.3	462.9	399.4	783.2	1508.0	786.6	301.0	317.6	446.6	423.7	381.2	7105.1
[illegible] PERCENTILE	411.0	440.7	551.2	479.4	935.6	1650.4	1119.4	387.6	401.7	512.3	457.8	407.0	7994.4
[illegible] PERCENTILE	483.3	486.3	654.6	556.7	1045.6	2307.7	1426.9	529.3	456.8	586.3	526.6	444.9	9050.7
MAXIMUM	622.1	954.5	1069.5	815.6	1377.6	2609.2	2312.2	740.3	632.8	737.1	674.0	517.9	10982.2
MINIMUM	174.1	237.5	258.9	141.5	324.7	980.0	94.2	0.0	114.6	327.7	302.7	271.9	4174.3

YELLOWSTONE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	37?.2	[illegible]	?52.7	544.1	762.2	1166.2	445.6	167.4	155.0	350.4	529.4	299.8	5172.5
1940	174.7	251.4	273.5	277.1	645.5	1210.0	187.7	0.	114.6	442.4	505.2	290.6	4175.5
1941	225.1	237.9	325.7	520.9	659.?	1000.7	324.2	224.8	652.6	715.6	504.1	423.6	5585.5
1942	464.5	462.1	640.7	555.2	954.?	1565.7	957.1	513.9	296.5	447.5	450.9	390.	7557.2
1943	595.4	615.?	655.0	610.5	955.?	2504.2	2085.5	604.5	444.7	471.1	458.5	407.6	10582.5
1944	411.5	575.6	525.5	452.5	651.?	2615.5	1420.5	562.5	571.5	440.5	425.9	316.6	6657.7
1945	410.2	565.7	540.0	510.2	522.2	1695.1	1554.0	505.4	411.2	555.0	496.4	381.6	7769.2
1946	432.0	445.5	522.0	455.5	712.5	1454.5	566.4	255.2	575.4	520.2	459.6	558.0	6568.4
1947	520.0	526.5	570.0	621.5	1290.1	1726.5	1415.5	458.9	405.5	571.6	511.4	445.5	8664.9
1948	455.5	435.7	655.5	453.4	1042.9	2435.7	992.9	560.5	247.7	420.2	455.2	274.7	8189.9
1949	282.5	535.2	612.0	475.4	975.6	1479.1	566.1	205.?	505.1	447.5	424.1	272.5	6584.5
1950	505.7	554.5	655.7	552.9	592.5	1675.4	1415.0	593.1	456.6	640.4	544.9	489.7	8502.5
1951	455.5	466.5	577.6	479.6	597.5	1412.1	1406.1	739.2	517.1	607.4	544.2	445.5	8651.1
1952	450.0	459.1	554.6	666.4	1579.2	1744.1	765.6	596.6	518.1	402.2	387.2	331.2	7978.5
1953	465.5	555.5	411.7	514.5	424.1	1665.5	755.6	295.6	229.5	562.2	354.8	547.5	6040.4
1954	245.0	5?2.2	501.9	541.5	591.?	1655.2	915.1	294.9	225.0	587.1	420.5	567.6	5760.9
1955	255.6	272.6	275.2	505.7	594.?	1255.6	546.5	155.2	160.5	579.1	557.6	547.0	5115.0
1956	520.2	504.1	556.2	479.4	1164.5	2076.6	666.2	51?.5	2??.2	372.5	424.2	324.4	7270.4
1957	519.5	562.9	465.5	529.2	1165.5	2654.1	1366.6	569.0	448.1	499.0	501.9	425.3	9084.3
1958	411.5	545.1	445.2	556.1	955.4	1550.1	494.5	190.1	212.5	560.8	574.0	515.8	5826.0
1959	557.9	335.9	755.5	565.7	555.?	1851.2	816.1	221.9	251.7	475.5	419.5	442.5	6800.2
1960	245.5	240.4	462.4	564.9	440.2	1125.9	135.2	99.6	168.8	525.5	576.0	275.5	4309.8
1961	266.5	282.5	258.2	140.6	525.7	1105.1	95.2	0.0	562.4	551.1	529.4	540.9	4255.4
1962	295.4	441.5	441.6	490.1	865.5	1549.6	1116.4	438.5	420.6	500.0	457.6	590.6	7707.6
1963	579.5	55?.?	445.2	559.4	507.?	1445.6	725.5	256.0	571.5	401.9	432.6	537.1	7132.8
1964	595.4	407.9	575.2	442.7	675.5	2072.2	1476.9	566.6	566.2	405.5	423.9	565.6	8012.2
1965	506.3	487.9	511.0	797.2	1019.5	2355.2	1941.5	683.5	624.0	653.6	432.5	411.9	10424.9
1966	579.6	572.7	540.5	565.5	685.5	979.2	296.6	95.5	175.0	539.9	596.5	595.7	5015.8
1967	545.2	326.7	546.5	594.4	748.5	2259.1	2314.1	528.2	595.1	531.9	508.0	490.6	9164.7
1968	622.7	679.1	532.5	497.6	602.5	2511.0	1242.0	595.7	603.9	615.7	545.9	430.7	9285.5
1969	522.5	47?.6	652.7	559.5	1047.9	1510.4	1077.2	584.6	517.6	465.4	435.2	451.7	7904.5
1970	438.9	482.9	595.9	296.6	1145.7	2297.5	1556.1	566.7	401.5	512.6	483.5	447.0	8707.9
1971	555.2	957.6	780.2	812.7	1187.5	2558.1	1436.7	552.2	525.5	737.6	590.1	494.2	10995.5
1972	499.2	545.0	1069.4	605.4	951.5	2005.4	941.4	506.1	501.6	656.0	627.0	595.0	9511.0
1973	525.9	5?9.4	525.5	505.6	1112.9	1504.5	656.1	560.4	487.7	566.6	574.5	518.5	8005.7
1974	527.5	514.7	550.5	620.9	650.7	2525.2	1508.5	555.4	455.9	525.4	566.6	462.9	9740.4
1975	551.1	[illegible]4.1	575.0	577.7	1299.1	2102.5	2524.2	722.5	[illegible]	4.5	9.6	6.6	9558.5
AVERAGE	5?4.7	4??.5	545.?	471.8	865.2	1775.4	1045.4	565.8	562.6	477.6	448.6	579.1	7555.7
MEDIAN	545.9	5?5.7	525.5	455.4	685.5	1695.1	941.4	502.5	571.5	471.1	455.2	595.0	7769.2
10 PERCENTILE	[illegible]	5??.1	575.2	550.1	594.0	1210.0	494.5	190.1	225.0	579.1	547.2	516.6	5585.5
30 PERCENTILE	545.?	5??.?	462.7	544.1	752.2	1507.5	765.5	244.?	517.6	447.5	424.2	561.6	7132.0
70 PERCENTILE	411.5	441.5	550.5	477.6	955.5	1651.2	1115.4	586.7	401.5	512.5	455.5	407.6	8012.2
90 PERCENTILE	435.9	[illegible]	654.6	559.5	1047.?	2511.0	1420.5	520.2	456.6	566.5	529.4	445.5	9064.5
MAX	522.7	957.?	1069.4	615.5	1579.2	2654.1	2514.1	739.2	652.6	737.6	674.5	510.5	10995.5
MIN	174.7	251.4	255.2	140.6	525.7	979.2	95.2	0.0	114.6	525.5	505.2	272.5	4175.5

2000 RECOMMEND AND DUE FROM BIGHORN

YELLOWSTONE RIVER AT MILES CITY

YR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	363.0	[illegible]	455.1	394.5	777.1	1151.0	439.8	161.7	150.9	345.8	324.8	295.2	5114.5
1940	170.1	247.4	273.7	272.5	658.2	1204.8	181.9	0.0	110.5	437.5	298.6	286.0	4121.4
1941	220.5	255.4	322.1	322.5	654.8	995.5	316.4	224.1	628.5	704.0	499.5	419.2	5527.7
1942	459.9	[illegible]	635.1	550.6	949.5	1658.5	951.5	366.2	292.4	442.9	426.5	365.6	7499.6
1943	[illegible]	509.4	650.4	611.7	950.5	2504.0	2082.6	602.8	440.6	466.5	455.7	403.0	10524.7
1944	407.0	369.0	621.7	447.7	626.4	2605.3	1425.0	356.6	367.4	443.9	419.3	312.0	8600.1
1945	405.5	384.7	545.4	515.6	517.1	1642.9	1528.2	499.7	407.1	548.4	493.8	377.2	7711.6
1946	477.4	441.5	517.4	451.7	707.1	1434.3	580.6	227.5	369.3	515.6	455.2	353.4	6510.8
1947	515.4	522.5	565.4	615.7	1284.9	1725.1	1410.0	453.2	401.4	567.0	506.8	440.9	8607.3
1948	450.9	[illegible]	630.9	446.8	1037.7	2431.5	967.1	354.6	245.6	415.6	428.6	270.1	8132.3
1949	277.9	334.2	603.2	470.8	970.5	1473.9	560.3	199.7	301.0	442.7	419.5	267.9	6326.7
1950	301.1	505.5	662.1	525.5	587.4	1670.2	1409.2	587.4	452.5	635.6	540.3	485.1	8244.6
1951	453.9	465.5	675.0	475.0	892.2	1406.9	1400.3	733.5	513.0	602.6	539.6	438.9	8593.5
1952	445.4	477.1	650.0	665.8	1374.0	1736.9	779.8	342.9	314.0	397.6	382.6	326.6	7920.7
1953	406.7	352.5	407.1	514.9	419.0	1660.3	779.8	292.9	225.4	357.6	360.2	392.7	5982.6
1954	246.4	[illegible]	297.5	336.7	886.2	1051.0	910.3	294.2	221.9	362.5	415.7	363.0	5725.3
1955	252.0	255.5	270.5	499.1	589.3	1231.4	540.5	129.5	156.4	374.5	355.0	392.4	5057.4
1956	315.5	500.1	551.6	474.8	1159.7	2071.6	662.4	304.8	285.1	367.7	419.6	319.8	7212.8
1957	314.7	353.9	458.7	529.6	1158.4	2626.9	1362.8	363.3	444.0	494.4	497.3	420.7	9026.6
1958	437.0	342.1	441.6	551.5	950.3	1324.9	495.7	184.4	208.2	356.2	369.4	311.2	5770.4
1959	333.3	329.9	729.2	501.1	547.9	1846.0	810.3	216.2	247.6	460.7	414.7	437.7	6742.5
1960	241.2	286.4	457.6	360.3	435.1	1120.7	129.4	93.9	164.7	320.7	371.4	270.7	4252.2
1961	265.7	275.3	255.6	136.2	318.6	1099.9	87.4	0.0	355.3	346.5	324.8	336.3	4205.5
1962	290.8	437.5	437.2	485.5	678.4	1844.4	1112.6	432.8	416.5	495.4	435.0	366.2	7650.0
1963	375.7	334.4	445.6	364.6	901.9	1438.4	719.7	232.3	367.4	397.3	428.0	332.5	7075.2
1964	399.3	415.9	370.5	456.1	865.7	2067.0	1473.1	382.9	362.1	399.0	419.3	379.2	7954.6
1965	501.7	465.4	506.4	792.6	1014.3	2351.0	1935.7	677.6	619.9	644.0	427.9	407.3	10367.3
1966	375.0	368.7	535.9	338.9	678.2	974.0	290.6	87.8	170.9	335.3	391.7	391.1	4958.2
1967	336.5	322.7	342.2	369.8	743.4	2233.9	2308.3	522.5	389.0	527.3	503.4	466.0	9107.0
1968	518.1	575.1	525.0	405.2	597.1	2305.6	1236.2	386.0	549.9	609.1	541.3	426.1	9227.9
1969	517.4	474.4	545.1	354.7	1041.6	1511.2	1071.4	379.1	313.5	456.8	426.6	447.1	7646.6
1970	484.5	484.9	394.5	294.2	1140.5	2292.1	1352.3	381.0	397.4	508.2	478.7	442.4	8650.3
1971	545.5	455.5	775.6	608.1	1182.1	2362.9	1430.9	546.5	519.4	735.0	565.5	489.6	10935.9
1972	494.5	541.0	1064.5	600.6	936.3	1998.2	935.6	502.4	497.5	651.4	622.4	388.4	9253.4
1973	519.3	524.4	515.9	499.2	1107.6	1504.1	650.3	374.7	485.6	562.2	669.9	513.9	7946.1
1974	522.4	513.7	545.9	515.5	525.5	2515.0	1602.7	527.7	449.8	520.8	584.2	458.3	9682.6
1975	545.5	480.1	671.4	573.1	1293.9	2097.3	2518.4	716.6	396.2	.8	5.0	2.0	9301.4
AVERAGE	390.1	415.5	534.0	457.2	860.0	1771.2	1039.6	360.3	358.6	473.2	444.2	374.5	7496.4
MEDIAN	383.5	394.7	513.9	445.6	878.4	1632.9	935.6	356.8	367.4	466.5	426.6	388.4	7711.6
80 PERCENTILE	277.9	300.1	370.6	331.5	589.3	1204.8	493.7	184.4	221.9	374.5	382.6	312.0	5527.7
60 PERCENTILE	333.5	334.9	455.1	394.5	777.1	1504.1	779.8	294.2	313.5	442.7	419.6	377.2	7075.2
40 PERCENTILE	407.0	437.5	545.4	475.0	950.5	1846.0	1112.6	381.0	397.4	508.2	455.7	403.0	7954.6
20 PERCENTILE	484.5	484.9	650.0	554.7	1041.8	2305.6	1425.0	522.5	452.5	582.2	524.8	440.9	9026.6
MAXIMUM	615.1	955.5	1064.5	811.7	1374.0	2626.9	2308.3	733.5	628.5	735.0	669.9	513.9	10935.9
MINIMUM	170.1	255.9	255.6	136.2	318.6	974.0	87.4	0.0	110.5	320.7	298.6	267.9	4121.4

2000 REDUCED AND BASELINE FROM [illegible]

YELLOWSTONE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	57.5	[illegible]	[illegible]	401.5	784.7	1158.7	442.5	170.2	136.9	352.0	331.6	302.0	5199.5
1940	173.7	233.5	234.5	274.5	643.5	1212.4	190.4	1.5	116.5	444.6	305.4	242.8	4197.2
1941	227.5	244.0	323.8	329.1	642.4	1005.1	326.9	252.0	654.5	715.6	306.3	426.0	5612.5
1942	466.7	464.0	342.9	357.4	957.4	1566.1	939.6	316.7	246.4	449.7	453.1	342.4	7384.4
1943	343.5	413.5	357.2	616.5	956.1	2511.7	2091.3	611.3	446.6	473.3	460.5	409.8	10609.5
1944	415.[illegible]	[illegible]	[illegible]	[illegible]	634.0	2613.0	1431.5	365.3	373.4	450.7	420.1	316.6	8684.9
1945	412.4	[illegible]	336.2	326.4	524.7	1700.5	1336.7	306.2	413.1	355.2	300.0	364.0	7796.4
1946	454.2	[illegible]	324.2	457.5	714.7	1442.0	569.1	236.0	375.5	322.4	442.0	360.2	6595.6
1947	322.2	[illegible]	372.1	623.5	1292.5	1730.6	1418.5	461.7	407.4	373.5	313.6	447.7	8692.1
1948	457.7	[illegible]	331.7	453.6	1045.3	2459.2	955.6	363.3	249.6	422.4	433.4	276.9	8217.1
1949	254.7	[illegible]	613.0	477.5	976.2	1481.6	366.0	204.2	307.0	444.5	425.3	274.7	6411.5
1950	307.9	371.2	665.9	533.1	593.0	1577.6	1417.7	345.9	450.3	642.6	547.1	491.9	8329.5
1951	460.7	470.2	679.7	481.6	699.5	1414.5	1406.6	742.0	519.0	609.6	546.4	445.7	8676.5
1952	452.2	461.0	653.8	670.5	1381.6	1745.6	768.3	401.4	320.0	404.4	309.4	333.4	8005.5
1953	497.5	[illegible]	413.6	521.7	425.6	1067.9	786.3	301.4	231.4	364.4	387.0	399.5	6067.6
1954	247.2	[illegible]	304.0	343.5	693.4	1030.6	416.8	302.7	227.9	369.3	422.5	369.0	5808.1
1955	253.8	274.7	277.4	305.9	595.9	1259.0	349.0	136.0	162.4	381.3	359.8	399.2	5142.2
1956	322.1	306.0	550.4	401.6	1167.3	2079.3	670.9	313.3	291.1	374.5	420.4	326.6	7297.6
1957	321.5	364.0	465.5	531.4	1166.0	2036.5	1371.3	371.8	450.0	501.2	504.1	427.5	9111.5
1958	413.5	[illegible]	440.3	353.3	957.4	1332.5	302.2	192.9	214.2	365.0	376.2	318.0	5055.2
1959	340.1	353.0	755.0	367.9	555.5	1855.6	613.8	224.7	255.6	475.5	421.5	444.5	6827.4
1960	243.0	242.5	464.5	367.1	442.7	1126.3	137.9	102.4	170.7	327.5	378.2	277.5	4537.0
1961	270.3	284.2	260.3	143.0	325.2	1107.5	95.4	0.0	364.3	553.3	331.6	343.1	4279.6
1962	297.6	443.2	444.0	492.5	880.0	1632.0	1121.1	441.3	422.5	502.2	454.8	395.0	7734.8
1963	381.5	[illegible]	430.5	371.6	909.5	1946.0	726.2	240.8	373.4	404.1	454.8	359.5	7160.0
1964	397.5	[illegible]	377.3	444.9	674.5	2074.6	1401.0	391.4	368.1	405.8	426.1	386.0	8059.4
1965	308.5	489.0	513.2	799.4	1021.9	2558.7	1944.2	680.1	625.9	555.6	434.7	414.1	10452.1
1966	381.[illegible]	374.0	342.7	333.7	685.8	981.6	299.3	46.5	176.9	342.1	396.5	347.9	5043.0
1967	345.4	[illegible]	349.0	346.6	751.0	2241.5	2316.6	331.0	395.0	334.1	510.2	492.0	9191.9
1968	624.9	331.0	634.1	410.0	604.7	2313.5	1244.7	546.4	695.8	615.9	546.1	452.9	9512.7
1969	521.7	[illegible]	631.9	361.5	1049.4	1310.9	1079.9	367.6	319.5	465.5	433.4	433.9	7951.5
1970	491.1	[illegible]	401.1	301.0	1140.1	2299.8	1360.6	384.5	403.4	515.0	405.5	444.2	8735.1
1971	335.4	359.5	782.4	414.9	1139.7	2370.6	1439.4	555.0	525.4	734.8	592.3	496.4	11020.7
1972	301.4	349.9	1071.6	607.6	905.9	2005.9	944.1	310.9	505.5	650.2	629.2	395.2	9550.2
1973	329.1	[illegible]	323.7	336.0	1115.3	1511.6	650.6	385.2	489.6	584.0	676.7	320.7	8032.9
1974	329.7	319.5	552.5	623.1	633.1	2525.7	1611.2	756.2	455.8	527.5	591.0	465.1	9767.6
1975	555.5	[illegible]	573.2	577.9	1301.5	2105.0	2526.9	725.3	402.2	7.0	11.3	6.6	9385.7
AVERAGE	392.1	[illegible]	345.5	474.0	667.7	1778.5	1040.1	365.4	364.5	480.0	431.0	381.3	7580.6
MEDIAN	343.5	[illegible]	323.7	453.6	[illegible]	1700.5	944.1	365.3	373.4	473.3	433.4	395.2	7796.4
[illegible] PERCENTILE	254.7	[illegible]	377.3	333.3	595.9	1212.4	302.2	192.9	227.9	381.3	[illegible]	318.0	5612.5
[illegible] PERCENTILE	345.4	[illegible]	464.5	401.5	784.7	1511.6	786.3	302.7	319.5	449.7	420.4	364.0	7160.0
40 PERCENTILE	413.5	[illegible]	[illegible]	481.6	956.1	1535.6	1121.1	[illegible]	403.4	515.0	460.5	409.8	8059.4
[illegible] PERCENTILE	491.1	[illegible]	[illegible]	561.5	1049.4	2313.5	1431.5	551.0	450.3	584.0	551.6	447.7	9111.5
MAXIMUM	[illegible]	[illegible]	1071.6	[illegible]	1381.6	2535.5	2316.5	742.0	654.5	749.3	676.7	529.7	11020.7
MINIMUM	173.7	[illegible]	[illegible]	143.0	325.2	931.6	95.4	0.0	116.5	327.5	305.4	274.7	4199.2

YELLOWSTONE RIVER AT MILES CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	372.9	270.5	455.4	401.6	755.3	1169.2	448.9	170.8	137.3	355.1	352.1	502.5	5206.1
1940	177.4	255.5	261.0	274.0	646.4	1213.0	191.0	2.1	116.9	445.1	505.9	293.3	4205.8
1941	227.3	241.5	329.4	329.6	643.0	1093.7	327.5	233.2	634.9	716.3	506.8	426.5	5619.1
1942	467.2	461.5	643.4	537.9	958.0	1666.7	960.4	317.3	298.8	450.2	433.6	392.9	7591.0
1943	340.1	515.5	637.7	819.0	930.7	2512.3	2091.9	611.9	447.0	473.8	461.0	410.3	10616.1
1944	414.3	370.0	629.0	455.0	634.5	2613.6	1432.1	365.9	373.8	451.2	426.6	319.3	8691.5
1945	412.9	391.1	550.7	520.9	525.3	1701.1	1537.3	508.8	413.5	555.7	501.1	364.5	7803.0
1946	434.7	447.7	524.7	459.0	715.3	1442.6	569.7	236.6	375.7	522.9	442.5	360.7	6602.2
1947	322.7	326.9	572.7	524.0	1293.1	1731.4	1419.1	462.3	407.8	574.3	514.1	448.2	8698.7
1948	458.2	434.1	653.2	455.1	1045.9	2439.8	996.2	363.9	250.0	422.9	435.9	277.4	8223.7
1949	265.2	340.6	615.5	478.1	978.8	1482.2	569.4	208.8	307.4	450.0	426.8	275.2	6418.1
1950	308.4	371.7	669.4	535.6	595.5	1673.4	1418.3	596.5	456.9	643.1	547.6	492.4	8336.0
1951	461.2	470.9	680.3	482.5	900.4	1415.1	1409.4	742.6	519.4	610.1	546.9	446.2	8684.9
1952	452.7	461.5	657.3	671.1	1382.2	1747.2	788.9	402.0	320.4	404.9	389.9	333.9	8012.1
1953	405.0	358.7	414.4	522.2	427.2	1668.5	788.9	302.0	231.6	364.9	367.5	400.0	6074.2
1954	247.7	350.6	304.3	344.0	694.4	1059.2	919.4	303.3	226.3	389.8	423.0	370.3	5814.7
1955	259.5	275.2	277.9	506.4	597.5	1239.6	549.6	138.6	162.8	381.8	360.3	399.7	5148.8
1956	322.9	306.5	538.9	482.1	1167.9	2079.9	671.5	313.9	291.5	375.0	426.9	327.1	7304.2
1957	322.0	365.3	466.0	531.9	1166.6	2637.1	1371.9	372.4	450.4	501.7	504.6	428.0	9118.0
1958	414.3	398.5	448.9	333.3	958.5	1333.1	502.8	193.5	214.6	363.5	376.7	318.5	5861.8
1959	340.5	330.3	735.5	365.4	556.1	1054.2	319.4	225.3	254.0	476.0	422.0	445.0	6834.0
1960	240.5	292.6	465.1	367.6	443.3	1128.9	138.5	103.0	171.1	328.0	378.7	278.0	4343.6
1961	271.0	284.7	260.9	143.5	325.8	1108.1	96.5	0.0	364.7	553.8	532.1	343.6	4285.8
1962	295.1	443.7	444.5	492.6	656.6	1632.6	1121.7	441.9	422.9	502.7	440.3	395.5	7741.4
1963	382.5	390.6	450.9	392.1	410.1	1945.6	726.8	241.4	373.8	404.6	435.3	334.8	7166.6
1964	390.1	411.3	377.9	443.4	676.9	2075.2	1462.2	392.0	366.5	406.3	426.6	366.5	8046.0
1965	309.0	490.3	513.7	799.9	1022.5	2359.3	1944.8	686.7	626.3	656.3	435.2	414.6	10456.7
1966	382.3	373.1	543.2	366.2	698.4	932.2	299.9	96.9	177.3	342.6	399.0	398.4	5049.6
1967	345.9	329.1	349.5	397.1	751.6	2242.1	2317.4	531.6	395.4	534.6	510.7	493.3	9196.4
1968	625.4	641.5	633.3	410.5	605.3	2314.1	1245.3	597.1	606.3	616.4	548.6	433.4	9319.5
1969	525.2	450.5	553.4	562.0	1050.0	1317.5	1060.5	386.2	319.9	466.1	435.9	454.4	7938.1
1970	491.6	491.5	401.6	501.5	1148.7	2306.4	1361.4	390.1	403.8	515.5	488.0	449.7	8741.7
1971	555.9	960.0	782.9	615.4	1190.3	2371.2	1440.0	555.6	525.8	740.3	592.6	496.9	11027.3
1972	501.9	547.4	1072.1	608.1	964.5	2006.5	944.7	511.5	503.9	658.7	629.7	395.7	9344.8
1973	526.6	551.3	526.2	596.5	1113.8	1512.4	659.4	383.8	490.0	589.5	677.2	521.2	8039.5
1974	530.2	517.1	553.2	625.6	633.7	2526.3	1611.0	536.0	456.2	526.1	591.5	465.6	9774.2
1975	553.5	485.5	578.7	380.4	1302.1	2105.6	2527.5	725.9	402.6	8.1	12.4	9.3	9392.9
AVERAGE	397.4	424.9	546.3	474.5	863.3	1779.4	1046.8	369.0	365.0	480.5	451.5	381.8	7587.3
MEDIAN	396.1	391.1	523.2	456.1	885.6	1701.1	944.7	365.9	373.6	473.6	435.9	395.7	7603.0
80 PERCENTILE	285.2	308.5	377.9	333.8	597.5	1213.0	502.8	193.5	228.3	381.5	389.9	319.3	5619.1
60 PERCENTILE	345.9	365.3	465.4	401.6	765.3	1512.4	788.9	303.3	319.9	450.0	426.9	364.5	7166.6
40 PERCENTILE	414.3	443.7	553.2	482.3	958.7	1654.2	1121.7	390.1	403.8	515.5	461.0	410.3	8046.0
20 PERCENTILE	491.5	491.5	657.3	562.0	1050.0	2314.1	1432.1	531.6	458.9	589.5	532.1	448.2	9118.0
MAXIMUM	625.4	960.0	1072.1	819.0	1382.2	2637.1	2317.4	742.6	634.9	740.3	677.2	521.2	11027.3
MINIMUM	177.4	241.5	260.9	143.5	326.4	932.2	96.5	0.0	116.9	326.0	305.9	275.2	4205.8

POWDER RIVER AT ARVADA

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL B OPERATION STUDY
2000 RECOMMEND DEVELOPMENT MINUS GASIF

POWDER RIVER AT ARVADA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	5.4	4.5	20.0	10.5	15.4	14.0	3.0	3.0	3.0	5.5	5.4	7.3	99.9
1940	4.3	.7	3.2	4.4	7.5	14.8	3.0	3.0	3.0	25.9	4.9	6.1	88.9
1941	5.9	1.6	3.2	43.5	73.4	15.3	59.7	44.1	9.2	17.3	14.2	11.9	292.3
1942	7.5	1.7	15.2	29.9	53.5	9.8	3.0	3.0	3.0	6.8	8.4	5.9	136.0
1943	7.2	[illegible]	15.5	41.4	32.1	49.7	3.0	3.0	3.0	3.6	5.0	4.6	181.0
1944	3.1	5.5	3.2	10.1	41.2	86.0	15.6	3.0	3.0	6.9	8.0	7.2	246.8
1945	6.5	6.4	15.5	30.2	29.7	55.5	14.4	3.0	3.0	9.9	11.5	6.4	202.6
1946	9.5	12.0	10.3	25.5	21.2	28.0	11.6	3.0	3.0	9.5	10.5	7.9	155.4
1947	6.0	9.7	45.1	15.6	78.4	38.0	10.1	3.0	3.0	5.7	9.4	6.9	236.8
1948	2.5	12.5	54.4	15.7	24.7	69.9	15.8	3.0	3.0	6.4	8.4	5.5	202.5
1949	4.1	5.3	40.7	13.5	26.0	31.6	3.0	3.0	3.0	6.0	6.1	1.7	147.4
1950	2.2	3.0	3.2	5.7	45.1	11.6	3.0	3.0	3.0	6.6	7.5	2.7	96.4
1951	4.3	4.4	3.2	3.4	3.0	3.0	3.0	3.0	3.0	7.6	7.0	4.9	49.6
1952	2.5	5.4	3.2	13.4	50.0	7.6	3.0	3.0	3.0	2.0	4.6	3.2	117.0
1953	5.3	5.2	3.2	3.6	3.0	23.6	3.0	3.0	3.0	.7	3.6	3.7	67.1
1954	3.9	11.5	5.2	9.5	6.5	3.0	3.0	3.0	3.0	.9	4.2	2.4	56.4
1955	2.7	3.2	15.7	29.7	23.1	36.1	3.0	3.0	3.0	2.0	3.1	12.6	137.4
1956	6.3	6.6	24.6	14.2	14.3	8.3	3.0	3.0	3.0	.7	2.9	4.7	92.0
1957	4.0	1.9	3.2	3.4	19.3	59.1	4.4	3.0	3.0	6.5	8.6	7.1	122.5
1958	5.7	4.6	3.2	9.6	22.9	15.2	10.1	3.0	3.0	1.7	5.6	4.4	96.9
1959	4.2	3.3	5.7	10.0	22.5	17.4	3.0	3.0	3.0	2.7	3.0	4.5	82.7
1960	3.5	5.0	17.1	13.7	3.0	3.0	3.0	3.0	3.0	.7	2.4	2.1	59.3
1961	2.7	2.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	9.7	6.5	2.6	40.2
1962	2.4	25.5	3.2	3.4	106.1	190.9	59.3	6.0	6.9	23.9	10.9	9.1	427.5
1963	7.7	14.7	12.5	13.6	25.2	47.9	3.0	3.0	3.0	4.5	7.2	5.2	150.6
1964	3.9	4.3	3.2	27.0	33.2	97.1	10.3	3.0	3.0	3.1	7.1	6.3	203.5
1965	9.2	13.3	11.2	40.3	41.4	59.3	19.0	3.0	3.0	9.1	8.4	5.5	222.6
1966	4.9	5.5	15.7	15.9	12.2	3.0	3.0	3.0	3.0	3.4	6.7	4.1	80.3
1967	5.0	5.4	3.2	3.4	17.3	155.1	38.2	3.0	3.0	8.9	9.7	5.1	258.2
1968	[illegible]	7.5	14.7	15.5	39.2	121.8	11.2	3.6	6.8	10.9	9.2	7.4	250.7
1969	4.1	7.0	13.2	14.9	12.9	10.1	3.0	3.0	3.0	3.7	7.1	4.9	96.9
1970	5.1	9.1	3.2	5.2	62.2	44.5	3.0	3.0	3.0	5.6	6.4	6.9	160.2
1971	4.3	8.3	17.6	15.6	48.3	49.5	3.0	3.0	3.0	7.5	9.6	6.6	178.5
1972	5.5	32.4	12.5	20.6	43.9	32.4	3.0	3.0	3.0	10.1	9.4	5.1	181.0
1973	5.4	7.5	11.9	39.4	74.1	22.3	16.5	3.0	4.1	14.0	18.7	16.3	240.5
1974	15.3	11.9	15.4	39.5	17.1	3.1	3.0	3.0	3.0	6.4	6.9	6.3	135.9
1975	5.2	5.1	3.2	7.1	35.6	96.9	20.1	3.0	3.0	.7	.7	.5	182.1
AVERAGE	5.6	6.2	12.3	17.5	33.6	41.8	9.3	4.1	3.5	7.0	7.4	5.9	156.1
MEDIAN	5.3	5.7	11.9	13.7	24.7	23.0	3.0	3.0	3.0	6.4	7.2	5.5	137.4
80 PERCENTILE	3.3	3.6	3.2	4.4	12.3	7.6	3.0	3.0	3.0	2.0	4.6	3.7	82.7
60 PERCENTILE	4.5	5.5	3.2	13.4	21.2	15.2	3.0	3.0	3.0	5.5	6.7	4.9	117.0
40 PERCENTILE	5.7	7.5	15.2	15.6	32.0	35.1	3.0	3.0	3.0	6.9	8.4	6.5	160.2
20 PERCENTILE	9.5	11.5	17.6	29.7	45.3	55.1	13.8	3.0	3.0	9.7	9.4	7.2	222.6
MAXIMUM	15.3	32.4	48.1	46.5	106.1	190.9	59.7	44.1	9.2	25.9	18.7	16.3	427.5
MINIMUM	2.2	1.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	.7	2.4	1.7	40.2

2000 RECOMEND AND BASELINE DEVELOPMEN

POWDER RIVER AT ARVADA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	8.4	4.0	20.0	10.3	15.4	14.8	3.0	3.0	3.0	5.3	5.4	7.3	99.[illegible]
1940	4.3	8.7	3.2	4.4	7.6	14.8	3.0	3.0	3.0	25.9	4.9	6.1	88.[illegible]
1941	5.9	6.6	3.2	48.5	73.4	18.3	39.7	44.1	9.2	17.3	14.2	11.9	292.3
1942	5.5	6.7	15.2	29.9	38.8	9.8	3.0	3.0	3.0	6.8	8.4	5.9	136[illegible]
1943	7.2	8.9	18.6	41.4	32.0	49.7	3.0	3.0	3.0	[illegible]	6.0	4.6	181.[illegible]
1944	3.1	3.3	3.2	18.1	91.2	86.0	13.8	3.0	3.0	6.9	8.0	7.2	246.[illegible]
1945	6.6	8.4	15.5	38.2	29.7	56.5	14.4	3.0	3.0	9.9	11.3	6.4	202.[illegible]
1946	9.6	12.0	16.3	23.3	21.2	28.0	11.6	3.0	3.0	9.3	10.3	7.9	155.[illegible]
1947	6.0	9.7	48.1	18.6	78.4	38.0	10.1	3.0	3.0	5.7	9.4	6.9	236.[illegible]
1948	5.5	12.3	34.4	13.7	24.7	69.9	13.8	3.0	3.0	8.4	8.4	5.5	202.5
1949	4.1	3.8	40.7	18.3	26.0	31.8	3.0	3.0	3.0	6.0	6.1	1.7	147.[illegible]
1950	2.2	3.0	3.2	6.7	46.1	11.6	3.0	3.0	3.0	6.6	7.3	2.7	98.4
1951	4.3	4.4	3.2	3.4	3.0	3.0	3.0	3.0	3.0	7.6	7.0	4.9	49.8
1952	2.6	5.4	3.2	13.4	66.0	7.6	3.0	3.0	3.0	2.0	4.6	3.2	117.[illegible]
1953	5.3	6.2	3.2	3.6	3.0	28.8	3.0	3.0	3.0	.7	3.6	3.7	67.1
1954	3.9	11.5	3.2	9.8	8.5	3.0	3.0	3.0	3.0	.9	4.2	2.4	56.4
1955	2.7	3.2	15.7	29.7	23.1	36.1	3.0	3.0	3.0	2.0	3.1	12.8	137.4
1956	6.3	6.8	24.8	14.2	14.3	8.3	3.0	3.0	3.0	.7	2.9	4.7	92.0
1957	4.0	1.9	3.2	3.4	19.3	58.1	4.4	3.0	3.0	6.5	8.6	7.1	122.5
1958	5.7	4.6	3.2	9.6	22.9	15.2	18.1	3.0	3.0	1.7	5.6	4.4	96.9
1959	4.2	3.5	5.7	10.0	22.8	17.4	3.0	3.0	3.0	2.7	3.0	4.5	82.7
1960	3.3	5.0	17.1	13.7	3.0	3.0	3.0	3.0	3.0	.7	2.4	2.1	59.3
1961	2.7	2.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	9.7	6.5	2.6	40.2
1962	2.4	25.5	3.2	3.4	106.1	190.9	39.3	6.0	6.9	23.9	10.9	9.1	427.5
1963	7.7	14.7	12.8	13.6	28.2	47.9	3.0	3.0	3.0	4.5	7.2	5.2	150.8
1964	5.9	4.3	3.2	27.0	33.2	97.1	10.3	3.0	3.0	3.1	7.1	6.3	203.5
1965	9.2	13.3	11.2	40.3	41.4	59.3	19.0	3.0	3.0	9.1	8.4	5.5	222.6
1966	4.9	5.5	15.7	15.9	12.2	3.0	3.0	3.0	3.0	3.4	6.7	4.1	80.3
1967	5.0	6.4	3.2	3.4	17.3	155.1	38.2	3.0	3.0	8.9	9.7	5.1	258.2
1968	5.0	7.5	14.7	13.5	39.2	121.8	11.2	3.6	6.8	10.9	9.2	7.4	250.7
1969	9.1	7.0	18.2	14.9	12.9	10.1	3.0	3.0	3.0	3.7	7.1	4.9	96.9
1970	6.1	9.1	3.2	5.2	62.2	44.5	3.0	3.0	3.0	5.6	8.4	6.9	160.2
1971	4.8	8.8	17.8	16.6	48.3	49.5	3.0	3.0	3.0	7.5	9.6	6.6	178.5
1972	5.6	32.4	12.5	20.6	43.9	32.4	3.0	3.0	3.0	10.1	9.4	5.1	181.[illegible]
1973	5.9	7.5	11.9	39.4	74.1	22.3	16.3	3.0	9.1	14.0	18.7	18.3	240.5
1974	15.3	11.9	16.4	39.5	17.1	3.1	3.0	3.0	3.0	6.4	8.9	6.3	133.9
1975	5.2	5.1	3.2	7.1	36.6	96.9	20.1	3.0	3.0	.7	.7	.5	182.1
AVERAGE	5.6	8.2	12.3	17.5	33.6	41.8	9.3	4.1	3.5	7.0	7.4	5.9	156.1
MEDIAN	5.3	6.7	11.9	13.7	24.7	28.0	3.0	3.0	3.0	6.4	7.2	5.5	137.4
80 PERCENTILE	3.3	3.8	3.2	4.4	12.2	7.6	3.0	3.0	3.0	2.0	4.6	3.7	82.7
60 PERCENTILE	4.8	5.5	3.2	13.4	21.2	15.2	3.0	3.0	3.0	5.3	6.7	4.9	117.[illegible]
40 PERCENTILE	5.7	7.5	15.2	16.6	32.0	36.1	3.0	3.0	3.0	6.9	8.4	6.3	160.2
20 PERCENTILE	6.6	11.5	17.8	29.7	48.3	58.1	13.8	3.0	3.0	9.7	9.4	7.2	222.6
MAXIMUM	15.3	32.4	48.1	48.5	106.1	190.9	39.7	44.1	9.2	25.9	18.7	18.3	427.5
MINIMUM	2.2	1.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	.7	2.4	1.7	40.2

2000 RECOMMENDED AND DUE DEVELOPMENT

POWDER RIVER AT ARVADA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	5.4	4.0	20.0	10.3	15.4	14.6	3.0	3.0	3.0	5.5	5.4	7.5	99.9
1940	4.5	5.7	3.2	4.4	7.6	14.8	3.0	3.0	3.0	25.9	4.9	6.1	88.9
1941	5.9	6.6	3.2	45.5	75.4	13.3	39.7	44.1	9.2	17.3	14.2	11.9	292.3
1942	5.5	6.7	15.2	29.9	36.6	9.8	3.0	3.0	3.0	6.8	8.4	5.9	136.0
1943	7.2	4.9	13.6	41.4	32.0	49.7	3.0	3.0	3.0	3.6	6.0	4.6	181.0
1944	3.1	3.3	3.2	15.1	91.2	85.0	13.8	3.0	3.0	6.9	8.0	7.2	246.
1945	6.6	8.4	15.5	38.2	29.7	56.5	14.4	3.0	3.0	9.9	11.3	6.4	202.
1946	9.5	12.0	10.3	23.3	21.2	26.0	11.6	3.0	3.0	4.3	10.3	7.9	155.4
1947	6.0	4.7	48.1	16.6	78.4	38.0	10.1	3.0	3.0	5.7	9.4	6.9	236.8
1948	5.5	12.3	54.4	13.7	24.7	69.9	13.8	3.0	3.0	8.4	6.4	5.5	202.5
1949	4.1	3.6	40.7	13.3	25.0	31.8	3.0	3.0	3.0	6.0	6.1	1.7	147.4
1950	2.2	3.0	3.2	6.7	46.1	11.6	3.0	3.0	3.0	6.6	7.3	2.7	98.4
1951	4.3	4.4	3.2	3.4	3.0	3.0	3.0	3.0	3.0	7.6	7.0	4.9	49.8
1952	2.6	5.4	3.2	13.4	66.0	7.6	3.0	3.0	3.0	2.0	4.6	3.2	117.0
1953	5.3	6.2	3.2	3.6	3.0	28.8	3.0	3.0	3.0	.7	3.6	3.7	67.1
1954	3.9	11.3	3.2	9.6	8.5	3.0	3.0	3.0	3.0	.9	4.2	2.4	56.4
1955	2.7	3.2	15.7	29.7	23.1	36.1	3.0	3.0	3.0	2.0	3.1	12.8	137.4
1956	6.3	6.6	24.5	14.2	14.3	8.3	3.0	3.0	3.0	.7	2.9	4.7	92.0
1957	4.0	1.9	3.2	3.4	19.3	56.1	4.4	3.0	3.0	6.5	8.6	7.1	122.5
1958	5.7	4.6	3.2	9.6	22.9	15.2	18.1	3.0	3.0	1.7	5.6	4.4	96.9
1959	4.2	3.5	5.7	10.0	22.8	17.4	3.0	3.0	3.0	2.7	3.0	4.5	82.7
1960	3.3	5.0	17.1	13.7	3.0	3.0	3.0	3.0	3.0	.7	2.4	2.1	59.3
1961	2.7	2.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	9.7	6.5	2.6	40.2
1962	2.4	25.5	3.2	3.4	106.1	190.9	39.3	6.0	6.9	23.9	10.9	9.1	427.5
1963	7.7	14.7	12.0	13.6	25.2	47.9	3.0	3.0	3.0	4.5	7.2	5.2	150.8
1964	5.9	4.3	3.2	27.0	33.2	97.1	10.3	3.0	3.0	3.1	7.1	6.3	203.5
1965	9.2	13.3	11.2	40.3	41.4	59.3	19.0	3.0	3.0	9.1	8.4	5.5	222.6
1966	4.9	5.5	15.7	15.9	12.2	3.0	3.0	3.0	3.0	3.4	6.7	4.1	80.3
1967	5.0	6.4	3.2	3.4	17.3	155.1	36.2	3.0	3.0	8.9	9.7	5.1	258.2
1968	5.0	7.5	14.7	13.5	39.2	121.8	11.2	3.6	6.8	10.9	9.2	7.4	250.7
1969	9.1	[illegible]	15.2	14.9	12.9	10.1	3.0	3.0	3.0	3.7	7.1	4.9	96.9
1970	6.1	4.1	3.2	5.2	62.2	44.5	3.0	3.0	3.0	5.6	8.4	6.9	160.2
1971	4.3	8.8	17.5	15.6	48.3	49.5	3.0	3.0	3.0	7.5	9.6	6.6	178.5
1972	5.5	32.4	12.5	20.6	43.9	32.4	3.0	3.0	3.0	10.1	9.4	5.1	181.0
1973	5.9	7.5	11.9	39.4	74.1	22.5	16.3	3.0	9.1	14.0	18.7	18.3	240.5
1974	15.3	11.9	10.4	39.5	17.1	3.1	3.0	3.0	3.0	6.4	8.9	6.3	135.9
1975	5.2	5.1	3.2	7.1	36.6	96.9	20.1	3.0	3.0	.7	.7	.5	182.1
AVERAGE	5.6	8.2	12.3	17.5	35.6	41.8	9.3	4.1	3.5	7.0	7.4	5.9	156.1
MEDIAN	5.3	6.7	11.9	15.7	24.7	28.0	3.0	3.0	3.0	6.4	7.2	5.5	137.4
80 PERCENTILE	3.3	3.5	3.2	4.4	12.2	7.6	3.0	3.0	3.0	2.0	4.5	3.7	82.7
60 PERCENTILE	4.5	5.5	3.2	15.4	21.2	15.2	3.0	3.0	3.0	5.5	6.7	4.9	117.0
40 PERCENTILE	5.7	7.5	15.2	16.6	32.0	36.1	3.0	3.0	3.0	6.9	8.4	6.3	160.2
20 PERCENTILE	6.6	11.5	17.3	29.7	48.3	58.1	13.6	3.0	3.0	9.7	9.4	7.2	222.6
MAXIMUM	15.3	32.4	48.1	45.5	106.1	190.9	39.7	44.1	9.2	25.9	18.7	18.3	427.5
MINIMUM	2.2	1.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	.7	2.4	1.7	40.2

[illegible] RIVER AT ARVADA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	5.0	5.0	5.0	5.5	[illegible]	7.5	99.9
1940	4.5	[illegible]	5.2	4.4	[illegible]	14.0	5.0	5.0	5.0	25.4	[illegible]	6.1	80.9
1941	[illegible]	[illegible]	[illegible]	45.5	75.4	16.5	51.7	44.1	9.2	17.5	14.2	11.9	292.5
1942	5.5	[illegible]	[illegible]	29.9	[illegible]	9.8	5.0	5.0	5.0	6.5	8.4	5.9	135.0
1943	7.2	[illegible]	15.5	41.4	[illegible]	49.7	5.0	5.6	5.0	5.5	6.9	4.6	181.0
1944	5.1	[illegible]	[illegible]	13.1	41.2	85.0	15.6	5.0	5.0	6.9	[illegible]	7.2	246.6
1945	[illegible]	[illegible]	[illegible]	[illegible]	24.7	30.5	14.4	5.0	5.0	4.9	11.5	6.4	202.8
1946	[illegible]	12.0	15.5	25.5	21.2	26.0	11.6	5.0	5.0	9.5	10.5	7.9	155.4
1947	[illegible]	[illegible]	45.1	[illegible]	[illegible]	[illegible]	10.1	5.0	5.0	5.7	9.4	6.9	256.6
1948	5.5	[illegible]	54.4	15.7	24.7	59.9	15.0	5.0	5.0	8.4	8.4	5.5	202.5
1949	4.1	[illegible]	[illegible]	18.5	26.1	51.6	5.0	5.0	5.0	6.0	6.1	1.7	147.4
1950	[illegible]	5.0	[illegible]	5.7	45.1	11.6	5.0	5.0	5.0	6.6	7.5	2.7	98.4
1951	4.3	4.4	5.2	5.4	5.0	5.0	5.0	5.0	5.0	7.5	7.0	4.9	49.5
1952	2.5	5.4	5.2	13.4	66.5	7.6	5.0	5.0	5.0	2.0	4.6	5.2	117.0
1953	5.5	[illegible]	5.2	5.6	[illegible]	28.0	5.0	5.0	5.0	.7	5.5	5.7	67.1
1954	5.9	11.5	5.2	[illegible]	[illegible]	5.0	5.0	5.0	5.0	.9	4.2	2.4	56.4
1955	2.7	5.2	15.7	24.7	25.1	55.1	5.0	5.0	5.0	2.0	5.1	12.8	137.4
1956	6.5	6.5	24.8	14.2	14.4	5.5	5.0	5.0	5.0	.7	2.9	4.7	92.0
1957	4.0	1.9	5.2	5.4	19.5	58.1	[illegible]	5.0	5.0	6.5	6.6	7.1	122.5
1958	5.7	[illegible]	5.2	[illegible]	26.9	15.2	16.1	5.0	5.0	1.7	5.5	4.4	96.9
1959	[illegible]	5.0	5.7	10.0	22.9	17.4	5.0	5.0	5.0	2.7	5.0	4.5	82.7
1960	5.5	5.0	17.1	15.7	5.0	5.0	5.0	5.0	5.0	.7	2.4	2.1	59.3
1961	2.7	[illegible]	5.2	5.4	5.0	5.0	5.0	.5	0.0	9.7	6.5	2.6	40.2
1962	2.4	25.5	5.2	5.4	106.1	190.9	54.5	6.0	6.9	25.9	10.4	9.1	427.5
1963	7.7	14.7	[illegible]	15.6	25.2	47.9	5.0	5.0	5.0	4.5	7.2	5.2	150.6
1964	5.9	[illegible]	5.2	22.0	55.2	97.1	16.5	5.0	5.0	5.1	7.1	6.5	205.5
1965	9.2	15.5	11.2	40.5	41.4	59.5	19.0	5.0	5.0	9.1	5.4	5.5	222.6
1966	4.9	5.5	15.7	15.9	12.2	5.0	5.0	5.0	5.0	3.4	6.7	4.1	80.5
1967	5.0	[illegible]	5.2	5.4	17.5	155.1	50.2	5.0	5.0	6.9	9.7	5.1	256.2
1968	[illegible]	[illegible]	14.7	15.5	34.2	121.6	11.2	5.0	6.6	10.9	4.2	7.4	250.7
1969	[illegible]	[illegible]	13.[illegible]	14.9	12.[illegible]	10.1	5.0	5.0	5.0	5.7	7.1	4.9	96.9
1970	2.1	9.1	5.2	5.2	62.2	44.5	5.0	5.0	5.0	5.5	8.4	6.9	160.2
1971	4.8	8.0	17.5	16.6	48.5	49.5	5.0	5.0	5.0	7.5	9.6	6.6	178.5
1972	5.5	52.4	12.5	20.6	45.4	52.4	5.0	5.0	5.0	10.1	9.4	5.1	181.0
1973	5.9	[illegible]	11.9	57.4	74.1	22.5	15.5	5.0	9.1	14.1	10.7	16.5	240.5
1974	15.5	11.7	[illegible]	54.5	17.1	5.1	5.0	5.0	5.0	5.4	5.9	6.5	155.9
1975	5.2	5.1	5.2	7.1	56.[illegible]	45.9	20.1	5.0	5.0	.7	.7	.5	182.1
AVERAGE	5.5	.2	12.5	17.5	55.[illegible]	41.6	9.5	4.1	5.5	7.0	7.4	5.9	150.1
[illegible]	[illegible]	.7	11.[illegible]	15.7	24.7	25.0	5.0	5.0	5.0	[illegible]	[illegible]	5.5	137.4
[illegible]	[illegible]	[illegible]	5.[illegible]	4.4	12.2	7.5	5.0	5.0	5.0	2.[illegible]	4.5	5.7	52.7
[illegible]	[illegible]	[illegible]	5.[illegible]	[illegible]	21.2	15.[illegible]	5.[illegible]	5.0	5.0	[illegible]	[illegible]	4.9	117.[illegible]
80 PERCENTILE	[illegible]	[illegible]	1[illegible]	15.6	52.[illegible]	55.1	5.0	5.0	5.0	6.4	6.4	6.5	160.2
20 PERCENTILE	[illegible]	11.5	17.5	24.7	45.[illegible]	55.1	15.6	5.0	5.0	9.7	9.4	7.2	222.6
MAX	1[illegible]	5[illegible]	[illegible]	[illegible]	106.1	190.9	54.7	44.1	9.2	25.9	15.7	16.5	427.5
MIN	[illegible]	[illegible]	5.2	5.4	5.0	5.0	5.0	.5	0.0	.7	2.4	1.7	40.2

TABLE 5 [illegible] DEPLETIONS IN [illegible] ENERGY ASSESSMENT [illegible]
[illegible]

[illegible] RIVER AT ARVADA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	.4	[illegible]	[illegible]	10.5	10.[illegible]	14.5	5.0	5.0	5.0	5.5	5.4	7.5	99.9
1940	[illegible]	[illegible]	5.[illegible]	4.4	7.[illegible]	14.6	5.0	5.0	5.0	25.9	4.9	5.1	86.9
1941	[illegible]	[illegible]	[illegible]	45.5	75.[illegible]	15.5	39.7	44.1	9.2	17.5	14.2	11.9	242.3
1942	[illegible]	[illegible]	15.2	22.5	55.5	9.6	5.0	5.0	5.0	5.5	6.4	5.9	150.0
1943	7.2	[illegible]	15.[illegible]	41.4	52.[illegible]	45.7	5.0	5.0	5.0	5.5	5.0	4.0	181.0
1944	5.1	[illegible]	5.2	15.1	41.2	85.0	13.6	5.0	5.0	5.9	8.0	7.2	240.8
1945	[illegible]	.4	15.5	5[illegible].2	24.7	55.5	14.4	5.0	5.0	9.9	11.5	6.4	202.8
1946	4.5	[illegible]	15.5	23.5	21.2	26.0	11.6	5.0	5.0	9.5	10.5	7.9	155.4
1947	5.[illegible]	[illegible].7	45.1	15.5	76.[illegible]	55.0	10.1	5.0	5.0	5.7	9.4	5.9	250.6
1948	5.[illegible]	1[illegible].5	[illegible]	15.7	24.7	57.9	15.6	5.0	5.0	8.4	6.4	3.5	202.5
1949	4.1	[illegible]	40.7	15.5	25.[illegible]	51.8	5.0	5.0	5.0	6.0	6.1	1.7	147.4
1950	2.2	5.[illegible]	5.2	5.7	45.1	11.6	5.0	5.0	3.0	0.0	7.5	2.7	90.4
1951	4.5	[illegible]	5.2	5.4	5.0	5.0	5.0	5.0	5.0	7.6	7.0	4.9	49.8
1952	[illegible]	[illegible]	5.2	15.4	55.[illegible]	7.5	5.0	5.0	5.0	2.0	4.5	3.2	117.0
1953	5.5	[illegible]	5.[illegible]	[illegible].5	5.[illegible]	25.5	5.0	5.0	5.0	.7	5.6	5.7	67.1
1954	5.4	1[illegible]	5.[illegible]	9.5	[illegible]	5.0	5.0	5.0	3.0	.9	4.2	2.4	50.4
1955	2.7	5.2	15.7	24.7	25.1	50.1	5.0	5.0	5.0	2.0	5.1	12.8	137.4
1956	[illegible]	5.[illegible]	24.5	14.2	14.[illegible]	3.5	3.0	5.0	5.0	.7	2.9	4.7	92.0
1957	4.0	1.9	5.2	5.4	19.5	55.1	4.4	5.0	5.0	5.5	8.6	7.1	122.5
1958	5.7	[illegible]	5.[illegible]	4.6	22.4	15.2	16.1	5.0	5.0	1.7	5.6	4.4	90.9
1959	4.2	[illegible]	5.7	1[illegible]	22.[illegible]	17.4	5.0	5.0	5.0	2.7	5.0	4.5	62.7
1960	5.3	5.[illegible]	17.1	15.7	5.[illegible]	5.0	5.0	3.0	3.0	.7	2.4	2.1	59.3
1961	2.7	[illegible].4	5.2	5.4	5.0	5.0	5.0	.5	0.0	9.7	6.5	2.6	40.2
1962	2.4	25.5	5.2	5.4	106.1	140.9	39.5	0.0	6.9	25.4	10.9	9.1	427.5
1963	7.7	1[illegible].7	12.5	15.6	[illegible]	47.9	5.0	5.0	5.0	4.5	7.2	5.2	150.6
1964	5.9	4.5	5.2	27.0	55.2	47.1	10.5	5.0	5.0	5.1	7.1	6.5	205.5
1965	9.2	15.5	11.2	40.5	41.4	59.5	19.0	5.0	3.0	9.1	8.4	5.5	222.6
1966	4.[illegible]	5.5	15.7	15.9	12.[illegible]	5.0	5.0	5.0	5.0	5.4	5.7	4.1	80.3
1967	5.[illegible]	5.4	5.2	5.4	17.5	155.1	36.2	5.[illegible]	5.0	0.9	9.7	5.1	250.2
1968	5.0	[illegible]	14.7	15.5	34.2	121.8	11.2	5.6	0.5	10.9	9.2	7.4	250.7
1969	4.1	7.0	15.2	14.9	12.4	10.1	5.0	[illegible].0	5.0	5.7	7.1	4.9	90.9
1970	6.1	9.1	5.2	5.2	52.2	34.5	5.0	5.0	5.0	5.6	6.4	6.9	160.2
1971	4.5	[illegible]	17.5	15.5	40.5	49.5	5.0	5.0	5.0	7.5	9.6	6.6	178.5
1972	5.5	[illegible]	12.5	20.5	43.3	32.4	5.0	5.0	5.0	10.1	9.4	5.1	181.0
1973	5.4	7.5	11.4	59.4	74.1	22.5	15.5	5.0	4.1	14.0	13.7	16.5	240.5
1974	15.5	11.4	15.4	59.5	17.1	5.1	5.0	5.0	5.0	6.4	8.9	6.5	133.9
1975	6.2	5.1	5.2	7.1	50.5	96.9	20.1	5.0	3.0	.7	.7	.5	182.1
AVERAGE	5.5	[illegible].2	12.5	17.5	33.6	41.8	9.3	4.1	3.5	7.0	7.4	5.9	156.1
MEDIAN	5.5	.7	11.9	15.7	24.7	23.0	5.0	5.0	5.0	5.4	7.2	5.5	137.4
80 PERCENTILE	5.5	5.	5.2	4.4	12.[illegible]	7.5	5.0	5.0	5.0	2.0	4.0	5.7	82.7
60 PERCENTILE	1.5	[illegible]	5.2	15.4	21.2	15.2	5.0	5.0	5.0	5.5	6.7	4.9	117.0
40 PERCENTILE	5.7	[illegible]	15.2	15.0	32.[illegible]	50.1	5.0	5.0	5.0	6.9	[illegible].4	5.5	160.2
20 PERCENTILE	5.5	11.[illegible]	17.[illegible]	29.7	45.5	58.1	13.6	5.0	5.0	4.7	9.[illegible]	7.2	222.6
MAXIMUM	15.[illegible]	[illegible]	[illegible]	[illegible]	106.1	140.9	39.7	44.1	9.2	25.9	16.7	16.5	427.5
MINIMUM	[illegible].2	[illegible]	5.2	[illegible].4	5.[illegible]	5.0	5.0	.5	0.0	.7	2.4	1.7	40.2

2000 RECOMMENDED 4.0 BASELINE FROM YELLD

POWDER RIVER AT ARVADA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	4.0	20.0	10.5	15.4	14.0	3.0	3.0	3.0	5.5	5.4	7.3	99.9
1940	4.3	5.7	3.2	9.4	7.6	14.8	3.0	3.0	3.0	25.9	4.9	6.1	86.9
1941	5.9	1.5	3.2	45.5	75.4	15.5	59.7	44.1	9.2	17.3	14.2	11.9	292.5
1942	5.5	5.7	15.2	29.9	58.0	9.8	3.0	3.0	3.0	6.8	8.4	.9	156.0
1943	7.2	6.9	15.5	41.4	[illegible]	49.7	3.0	3.0	3.0	3.6	6.0	4.6	161.0
1944	5.1	5.5	3.2	15.1	91.2	85.0	13.8	3.0	3.0	6.9	5.0	7.2	246.8
1945	5.5	3.4	15.5	35.2	29.7	50.5	14.4	3.0	3.0	9.9	11.3	6.4	202.6
1946	4.5	12.0	15.3	25.3	21.2	25.0	11.6	3.0	3.0	9.3	10.3	7.9	155.4
1947	6.0	4.7	48.1	15.6	70.4	35.0	10.1	3.0	3.0	5.7	9.4	6.9	236.8
1948	5.5	12.5	34.4	13.7	24.7	59.9	15.6	3.0	3.0	6.4	6.4	5.5	202.5
1949	4.1	5.8	40.7	12.3	25.0	31.8	3.0	3.0	3.0	6.0	5.1	1.7	147.4
1950	2.2	5.0	3.2	5.7	45.1	11.6	3.0	3.0	3.0	6.6	7.3	2.7	96.4
1951	4.5	4.4	3.2	3.4	3.0	3.0	3.0	3.0	3.0	7.6	7.0	4.9	49.6
1952	2.5	5.4	3.2	13.4	66.0	7.5	3.0	3.0	3.0	2.0	4.6	3.2	117.0
1953	5.5	5.2	3.2	3.6	3.0	20.8	3.0	3.0	3.0	.7	5.6	3.7	67.1
1954	3.9	11.5	3.2	9.8	[illegible]	3.0	3.0	3.0	3.0	.9	4.2	2.4	56.4
1955	2.7	3.2	15.7	29.7	25.1	35.1	3.0	3.0	3.0	2.0	3.1	12.8	137.4
1956	6.5	6.0	24.3	14.2	14.5	6.3	3.0	3.0	3.0	.7	2.9	4.7	92.0
1957	4.0	1.9	3.2	3.4	19.5	53.1	4.4	3.0	3.0	6.5	6.6	7.1	122.5
1958	5.7	4.5	3.2	9.6	22.4	15.2	18.1	3.0	3.0	1.7	5.6	4.4	96.9
1959	4.2	5.5	5.7	10.0	[illegible]	17.4	3.0	3.0	3.0	2.7	3.0	4.5	82.7
1960	3.5	5.0	17.1	13.7	3.0	3.0	3.0	3.0	3.0	.7	2.4	2.1	59.3
1961	2.7	2.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	4.7	6.5	2.6	40.2
1962	2.4	25.5	3.2	3.4	105.1	190.9	59.3	5.0	6.9	25.9	10.9	9.1	427.5
1963	7.7	14.7	12.8	15.6	23.2	47.9	3.0	3.0	3.0	4.5	7.2	5.2	150.8
1964	5.9	4.5	3.2	27.0	55.2	97.1	10.3	3.0	3.0	3.1	7.1	6.3	205.5
1965	9.2	15.3	11.2	40.5	41.4	59.3	19.0	3.0	3.0	9.1	8.4	5.5	222.6
1966	4.9	5.5	15.7	15.9	12.2	3.0	3.0	3.0	3.0	3.4	6.7	4.1	80.3
1967	5.0	6.4	3.2	3.4	17.5	155.1	38.2	3.0	3.0	8.9	9.7	5.1	258.2
1968	5.0	7.5	14.7	13.5	59.2	121.6	11.2	5.6	6.8	10.9	9.2	7.4	250.7
1969	4.1	7.0	15.2	14.9	12.9	10.1	3.0	3.0	3.0	3.7	7.1	4.9	96.9
1970	6.1	4.1	3.2	5.2	52.2	44.5	3.0	3.0	3.0	5.6	8.4	6.9	160.2
1971	4.8	[illegible]	17.6	15.6	40.5	49.5	3.0	3.0	3.0	7.5	9.6	6.6	176.5
1972	5.5	36.4	12.5	20.6	45.9	32.4	3.0	3.0	3.0	10.1	9.4	5.1	181.0
1973	5.9	7.5	11.9	39.4	74.1	22.5	16.5	3.0	9.1	14.0	18.7	16.3	240.5
1974	15.5	11.9	15.4	39.5	17.1	3.1	3.0	3.0	3.0	6.4	6.9	6.3	135.9
1975	5.2	5.1	3.2	7.1	56.5	40.9	20.1	3.0	3.0	.7	.7	.5	182.1
AVERAGE	5.5	4.2	12.3	17.5	35.6	41.3	9.5	4.1	3.5	7.0	7.4	5.9	156.1
MEDIAN	5.5	5.7	12.9	15.7	24.7	25.0	3.0	3.0	3.0	6.4	7.2	5.5	137.4
80 PERCENTILE	3.5	[illegible]	3.2	4.4	12.2	7.6	3.0	3.0	3.0	2.0	4.6	3.7	82.7
60 PERCENTILE	4.5	[illegible]	3.2	13.4	21.2	15.2	3.0	3.0	3.0	5.3	6.7	4.9	117.0
40 PERCENTILE	5.7	7.5	15.2	15.6	32.0	35.1	3.0	3.0	3.0	6.9	8.4	6.3	160.2
20 PERCENTILE	5.5	11.5	17.3	29.7	46.5	53.1	15.6	3.0	3.0	9.7	9.4	7.2	222.6
MAXIMUM	15.5	36.4	48.1	45.5	105.1	190.9	59.7	44.1	9.2	25.9	18.7	16.3	427.5
MINIMUM	2.2	1.9	3.2	3.4	3.0	3.0	3.0	.3	0.0	.7	2.4	1.7	40.2

2000 RELEASE ... A.DJAGE FROM YELLOWSTON

POWDER RIVER AT ARVADA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	5.4	[illegible]	23.0	10.5	15.4	14.8	5.0	5.0	5.0	5.3	5.4	7.5	94.9
1940	4.5	5.7	5.2	4.4	7.5	14.8	5.0	5.0	5.0	25.9	4.9	6.1	88.9
1941	5.7	5.0	15.2	45.5	75.4	15.5	59.7	44.1	9.2	17.5	14.2	11.9	292.5
1942	5.3	5.7	15.2	24.9	35.5	9.8	5.0	5.0	5.0	6.8	8.4	5.9	136.0
1943	7.2	[illegible]	15.5	41.4	53.0	49.7	5.0	5.0	5.0	5.6	5.0	4.6	181.0
1944	5.1	5.5	5.2	15.1	91.2	85.0	13.8	5.0	5.0	6.9	8.0	7.2	246.8
1945	5.5	4.4	15.5	55.2	29.7	56.5	14.4	5.0	5.0	9.9	11.5	6.4	202.8
1946	7.5	12.3	15.5	25.5	21.2	20.0	11.6	5.0	5.0	9.5	10.5	7.9	155.4
1947	6.0	7.7	45.1	15.6	75.4	38.0	10.1	5.0	5.0	5.7	9.4	6.9	236.8
1948	5.5	12.5	54.4	15.7	24.7	69.9	15.0	5.0	5.0	8.4	6.4	5.5	202.5
1949	4.1	5.5	41.7	15.5	26.0	31.8	5.0	5.0	5.0	6.0	6.1	1.7	147.4
1950	2.2	5.0	5.2	6.7	46.1	11.6	5.0	5.0	5.0	6.6	7.5	2.7	98.4
1951	4.5	4.4	5.2	5.4	5.0	5.0	5.0	5.0	5.0	7.6	7.0	4.9	49.8
1952	2.5	5.4	5.2	15.4	55.0	7.6	5.0	5.0	5.0	2.0	4.6	5.2	117.0
1953	5.5	6.2	5.2	5.0	5.0	25.6	5.0	5.0	5.0	.7	5.6	5.7	67.1
1954	5.7	11.5	5.2	9.0	5.5	5.0	5.0	5.0	5.0	.9	4.2	2.4	56.4
1955	2.7	5.2	15.7	29.7	25.1	56.1	5.0	5.0	5.0	2.0	5.1	12.8	137.4
1956	6.5	0.0	24.5	14.2	14.5	15.5	5.0	5.0	5.0	.7	2.4	4.7	92.0
1957	4.0	1.9	5.2	5.4	19.5	50.1	4.4	5.0	5.0	6.5	8.6	7.1	122.5
1958	5.7	4.5	5.2	4.0	22.9	15.2	15.1	5.0	5.0	1.7	5.6	4.4	96.9
1959	4.2	5.5	5.7	10.0	22.5	17.4	5.0	5.0	5.0	2.7	5.0	4.5	82.7
1960	5.5	5.0	17.1	15.7	5.0	5.0	5.0	5.0	5.0	5.7	2.4	12.1	99.5
1961	2.7	2.9	5.2	5.4	5.0	5.0	5.0	.5	0.0	9.7	6.5	2.6	40.2
1962	2.4	25.5	5.2	5.4	106.1	190.9	59.5	6.0	6.9	25.9	10.9	9.1	427.5
1963	7.7	14.7	12.5	15.5	26.2	47.9	5.0	5.0	5.0	4.5	7.2	5.2	150.8
1964	5.9	4.5	5.2	27.0	55.2	97.1	10.5	5.0	5.0	5.1	7.1	6.5	203.5
1965	4.2	15.5	11.2	40.5	41.4	59.3	19.0	5.0	5.0	4.1	8.4	5.5	222.6
1966	4.9	5.5	15.7	15.9	12.2	5.0	5.0	5.0	5.0	5.4	6.7	4.1	80.5
1967	5.0	6.4	5.2	5.4	17.5	155.1	36.2	5.0	5.0	8.9	9.7	5.1	256.2
1968	5.0	7.5	14.7	15.5	59.2	121.8	11.2	5.0	6.8	10.9	9.2	7.4	250.7
1969	4.1	7.0	15.2	14.9	12.9	10.1	5.0	5.0	5.0	5.7	7.1	4.9	95.9
1970	5.1	4.1	5.2	5.2	52.2	44.5	14.0	5.0	5.0	5.6	13.4	6.9	160.2
1971	4.5	5.5	17.5	15.6	48.5	44.5	5.0	5.0	5.0	7.5	9.6	6.6	178.5
1972	5.6	52.4	12.5	20.6	45.9	32.4	5.0	5.0	5.0	10.1	9.4	5.1	181.0
1973	5.4	7.5	11.9	59.4	74.1	22.5	16.5	5.0	9.1	14.0	16.7	16.5	246.5
1974	15.5	11.9	15.4	54.5	17.1	5.1	5.0	45.0	5.0	6.4	6.9	6.5	155.9
1975	5.2	5.1	5.2	7.1	56.5	45.9	20.1	5.0	5.0	.7	.7	.5	182.1
AVERAGE	5.5	7.2	12.5	17.5	35.5	41.8	4.5	4.1	3.5	7.0	7.4	5.9	156.1
MEDIAN	5.5	5.7	11.9	15.7	24.6	25.0	5.0	5.0	5.0	6.4	7.2	5.5	137.4
80 PERCENTILE	5.5	5.5	5.2	4.4	12.2	7.5	5.0	5.0	5.0	2.0	4.5	3.7	82.7
60 PERCENTILE	4.5	5.5	5.2	13.4	21.2	15.2	5.0	5.0	5.0	5.5	6.7	4.9	117.0
40 PERCENTILE	5.7	7.5	15.2	16.6	32.0	50.1	5.0	5.0	5.0	6.9	8.4	6.3	160.2
20 PERCENTILE	[illegible]	11.5	17.5	24.7	48.5	55.1	15.0	5.0	5.0	9.7	9.4	7.2	222.5
MAXIMUM	15.5	52.4	45.1	45.5	105.1	190.9	59.7	44.1	9.2	25.9	16.7	16.5	427.5
MINIMUM	2.2	1.7	5.2	5.4	5.0	5.0	5.0	.5	0.0	.7	2.4	1.7	40.2

POWDER RIVER AT LOCATE

1. <u>2000 Recommend Development Minus Gasif</u>

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. <u>2000 Recommend and Baseline Development</u>

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. <u>2000 Recommend and DOE Development</u>

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. <u>2000 Recommend and Baseline from Bighorn</u>

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. <u>2000 Recommend and DOE from Bighorn</u>

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. <u>2000 Recommend and Baseline from Yellowstone</u>

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. <u>2000 Recommend and DOE from Yellowstone</u>

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

2000 RECOMMENDED DEVELOPMENT MINUS GASIF

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	5.1	1.4	82.4	11.5	5.0	24.0	5.0	5.0	5.0	1.2	1.5	2.9	151.2
1940	0.0	0.0	10.5	5.0	5.0	11.2	23.7	10.9	5.0	54.1	5.6	10.2	141.4
1941	5.2	7.7	11.5	5.0	40.7	40.0	22.1	39.1	40.0	36.5	19.4	23.0	290.6
1942	5.5	4.2	55.5	40.9	62.5	58.7	5.0	5.0	5.0	7.1	5.9	7.3	263.1
1943	5.9	215.3	99.5	65.7	39.4	131.3	16.0	5.0	5.0	1.2	6.5	3.7	594.5
1944	1.5	.2	215.6	101.7	165.9	454.5	66.5	7.5	5.0	4.0	7.9	5.7	1035.9
1945	3.5	12.5	35.1	31.5	25.9	132.0	30.7	13.0	5.0	13.2	11.5	7.1	319.5
1946	13.7	19.9	44.0	55.6	51.3	32.8	34.4	7.5	7.6	39.9	16.9	17.6	371.3
1947	12.3	34.9	179.6	63.2	117.4	93.7	27.6	5.0	5.0	5.0	7.5	7.4	551.9
1948	5.7	99.5	162.2	50.9	41.6	111.2	52.5	13.1	5.0	10.2	14.0	2.7	546.6
1949	1.7	.7	197.1	57.2	43.0	54.7	5.0	5.0	5.0	6.4	10.9	1.1	377.6
1950	0.0	0.0	5.0	41.7	19.5	30.5	5.0	5.0	5.0	6.4	5.0	5.3	138.2
1951	2.4	3.5	5.0	12.2	5.0	5.0	5.0	15.2	15.5	14.1	17.1	20.9	118.8
1952	2.3	4.1	84.6	73.6	57.0	29.4	5.0	5.0	5.0	.7	3.7	3.5	279.0
1953	4.3	8.1	10.1	5.0	5.0	77.7	5.0	12.0	5.0	2.5	2.0	5.1	142.5
1954	4.5	16.3	10.7	5.0	5.0	5.0	5.0	5.0	13.0	0.0	1.4	2.6	74.2
1955	1.5	.6	5.0	44.9	5.3	33.8	16.6	5.0	5.0	.0	.2	2.0	120.7
1956	4.6	2.1	31.8	20.5	22.2	25.7	5.0	5.0	5.0	0.0	1.6	4.4	127.9
1957	2.5	1.4	5.0	5.0	5.0	85.9	11.3	5.0	5.0	5.2	9.0	5.0	145.5
1958	6.9	7.4	5.0	5.0	14.3	36.6	30.3	5.5	5.0	2.5	2.7	6.1	127.5
1959	5.5	5.9	124.3	22.1	16.4	19.7	5.0	5.0	5.0	1.6	4.2	7.5	218.6
1960	5.5	5.5	81.4	20.5	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	136.5
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.1	2.6	.2	42.1
1962	0.0	73.6	29.6	5.0	7.1	205.1	96.9	10.3	5.0	26.0	14.0	7.1	480.9
1963	4.9	60.5	31.9	17.4	42.0	175.1	20.0	5.0	5.0	5.1	9.0	3.0	387.9
1964	4.5	4.0	14.2	11.6	21.7	173.1	42.9	5.0	5.0	.0	2.3	3.0	287.7
1965	7.5	12.4	5.0	147.1	49.5	92.6	23.9	5.0	5.0	13.6	10.6	5.0	377.6
1966	5.5	4.5	7.4	16.0	5.0	5.0	5.0	5.0	5.0	1.9	2.5	2.6	67.7
1967	3.1	7.7	17.3	11.3	36.9	244.1	91.9	5.0	18.7	12.9	13.8	4.2	467.0
1968	5.7	23.0	92.2	15.7	50.3	199.5	19.3	18.5	17.9	15.2	16.3	5.4	460.0
1969	3.5	6.5	125.9	69.5	45.5	13.0	28.7	5.0	5.0	1.1	6.9	3.1	323.7
1970	4.6	11.5	33.6	13.7	66.9	115.5	7.5	5.0	5.0	3.6	10.8	4.4	301.6
1971	2.6	109.4	135.5	55.6	55.5	139.5	12.0	5.0	5.0	51.5	19.6	3.4	597.4
1972	5.1	75.6	229.7	31.4	45.4	75.0	15.6	5.0	5.0	17.8	19.2	4.0	529.9
1973	5.0	10.5	15.6	39.2	105.3	84.1	8.1	10.0	14.7	16.4	16.3	5.7	336.0
1974	25.4	24.5	37.5	45.7	44.4	24.4	5.0	5.0	5.0	13.4	10.6	9.7	261.5
1975	8.2	10.5	54.5	24.5	98.4	153.5	75.6	5.0	5.0	.4	.5	.2	421.1
AVERAGE	5.2	24.2	61.8	32.4	38.6	80.3	23.0	7.8	7.4	10.8	8.6	5.7	313.9
MEDIAN	5.0	7.7	31.9	20.5	30.5	54.7	12.0	5.0	5.0	5.1	7.9	4.4	287.7
80 PERCENTILE	1.7	1.4	5.0	5.0	5.0	13.0	5.0	5.0	5.0	1.1	2.5	2.0	127.9
60 PERCENTILE	3.5	5.9	15.5	17.4	19.5	35.8	5.0	5.0	5.0	3.6	5.6	3.7	218.6
40 PERCENTILE	4.5	10.9	44.0	31.5	41.6	54.1	19.3	5.0	5.0	6.4	10.8	5.3	323.7
20 PERCENTILE	5.9	29.5	124.3	45.7	51.3	132.0	30.5	10.3	5.0	15.2	16.3	7.3	467.0
MAXIMUM	25.4	215.3	229.7	147.1	165.9	454.5	96.9	39.1	40.0	54.1	19.6	23.0	1035.9
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	42.1

MRBC SEC 13A ENERGY ASSESSMENT
2000 RECOMEND AND BASELINE DEVELOPMEN

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	4.4	.3	82.0	11.1	5.0	23.4	5.0	5.0	5.0	.8	.6	1.1	143.6
1940	0.0	0.0	10.1	5.0	5.0	10.6	23.0	10.2	5.0	52.4	3.9	8.4	133.4
1941	3.5	6.2	11.1	5.0	40.0	30.3	5.0	32.3	35.3	35.1	17.7	21.2	242.6
1942	1.8	6.7	52.0	39.2	60.4	56.5	5.0	5.0	5.0	5.4	4.2	6.1	247.2
1943	8.0	209.0	92.2	64.0	37.2	129.1	16.3	5.0	5.0	0.0	4.6	1.9	572.2
1944	.2	0.0	215.4	92.2	163.7	452.3	63.9	6.6	5.0	2.8	6.2	3.9	1012.0
1945	2.1	12.2	34.1	31.1	18.2	127.2	28.1	12.2	5.0	11.5	9.8	5.3	296.7
1946	12.0	18.4	43.0	30.7	49.1	80.6	31.8	6.8	7.1	38.2	15.2	15.8	348.6
1947	12.3	34.5	173.9	61.5	115.7	83.5	25.0	5.0	5.0	3.3	5.8	5.6	531.0
1948	2.0	98.0	157.4	29.2	39.4	109.0	49.9	12.3	5.0	8.5	12.3	1.3	524.1
1949	.6	0.0	195.3	32.2	39.9	62.5	5.0	5.0	5.0	4.7	9.2	0.0	359.3
1950	0.0	0.0	5.0	41.2	10.6	31.3	5.0	5.0	5.0	6.7	3.3	3.5	116.6
1951	.7	2.0	5.0	11.7	5.0	5.0	5.0	14.5	13.0	12.4	15.4	19.1	108.7
1952	1.3	7.6	84.2	73.1	33.7	27.2	5.0	5.0	5.0	0.0	2.0	1.8	245.8
1953	3.1	6.6	5.0	5.0	5.0	66.9	5.0	11.2	5.0	2.2	.4	3.3	118.7
1954	2.9	15.3	10.2	5.0	5.0	5.0	5.0	5.0	12.5	0.0	1.0	1.7	68.6
1955	1.1	.4	5.0	44.4	5.0	27.0	15.8	5.0	5.0	0.0	0.0	.2	109.0
1956	2.9	1.0	29.1	20.0	5.0	10.2	5.0	5.0	5.0	0.0	0.0	2.6	85.7
1957	2.1	0.0	5.0	5.0	5.0	70.9	8.7	5.0	5.0	3.5	7.3	3.2	120.6
1958	5.2	5.9	5.0	5.0	5.5	34.6	29.2	5.0	5.0	2.1	1.0	4.3	107.7
1959	2.1	2.4	120.6	17.0	14.2	17.5	5.0	5.0	5.0	0.0	2.5	5.7	196.0
1960	2.6	4.3	80.9	17.9	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	130.6
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	2.3	1.1	0.0	38.4
1962	0.0	72.2	29.1	5.0	5.0	181.3	91.4	9.6	5.0	24.3	12.3	5.3	440.5
1963	3.2	58.8	30.9	16.9	23.9	173.9	27.3	5.0	5.0	4.7	7.3	1.9	358.7
1964	2.9	2.5	13.7	9.7	17.4	165.2	40.3	5.0	5.0	0.0	.6	1.2	263.4
1965	5.3	10.9	5.0	138.8	47.4	90.4	23.2	5.0	5.0	11.9	9.1	3.2	355.7
1966	4.6	3.0	5.7	17.5	5.0	5.0	5.0	5.0	5.0	.2	.8	1.0	57.7
1967	2.5	6.5	16.8	10.8	36.3	228.0	91.2	5.0	18.2	11.2	12.1	2.4	441.0
1968	2.0	21.5	91.0	18.2	29.6	183.7	16.7	15.9	16.2	13.5	14.6	3.6	426.4
1969	6.8	5.0	127.1	67.8	43.3	10.8	27.9	5.0	5.0	0.0	7.2	2.0	307.8
1970	4.1	10.0	33.1	13.2	75.0	113.3	6.7	5.0	5.0	2.3	9.1	2.7	279.5
1971	.9	108.4	134.7	53.7	49.8	137.3	11.2	5.0	5.0	49.8	17.9	1.6	575.2
1972	4.4	74.6	229.3	25.5	42.7	72.8	14.8	5.0	5.0	16.1	17.5	2.2	509.9
1973	6.9	9.3	15.5	35.1	96.8	81.9	7.4	7.2	16.2	16.7	14.6	3.9	311.4
1974	23.7	28.1	36.8	40.6	40.5	22.2	5.0	5.0	5.0	11.7	14.9	7.9	241.4
1975	6.5	8.8	39.1	23.9	86.7	153.3	71.0	5.0	5.0	0.0	.0	0.0	399.2
AVERAGE	3.9	23.0	60.4	30.5	34.5	83.5	21.5	7.3	7.3	9.6	7.1	4.2	292.6
MEDIAN	2.6	6.5	30.9	18.2	23.9	62.5	8.7	5.0	5.0	3.5	6.2	2.7	247.2
80 PERCENTILE	.7	.3	5.0	5.0	5.0	10.6	5.0	5.0	5.0	0.0	.8	1.2	109.0
60 PERCENTILE	2.1	4.3	15.5	16.9	10.6	30.3	5.0	5.0	5.0	2.3	3.9	2.0	196.9
40 PERCENTILE	3.1	9.3	43.0	30.7	37.2	80.6	16.3	5.0	5.0	6.7	9.1	3.5	307.8
20 PERCENTILE	5.2	28.1	120.6	44.4	47.4	129.1	28.1	9.6	5.0	13.5	14.6	5.6	440.5
MAXIMUM	23.7	209.0	229.3	138.8	163.7	452.3	91.4	32.3	35.3	52.4	17.9	21.2	1012.0
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	38.4

2000 RECTHEND AND DUE DEVELOPMENT

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	2.5	0.0	81.0	10.1	5.0	22.3	5.0	5.0	5.0	0.0	0.0	0.0	136.1
1940	0.0	0.0	5.0	5.0	5.0	5.0	21.6	5.0	5.0	50.2	1.6	6.6	110.2
1941	2.3	5.2	10.1	5.6	38.9	29.1	5.0	25.4	32.9	32.9	15.4	19.0	221.1
1942	.5	4.5	49.9	29.3	32.0	53.7	5.0	5.0	5.0	3.2	2.8	5.1	196.1
1943	7.0	207.0	89.9	51.7	54.4	125.5	14.9		5.0	0.0	2.3	0.0	543.6
1944	0.0	0.0	214.4	85.4	150.9	449.5	60.6	[illegible]	5.0	1.5	4.9	[illegible]	980.5
1945	1.1	11.4	32.5	30.1	17.0	112.6	24.8	10.9	5.0	9.3	7.5	3.8	265.7
1946	9.9	17.6	41.1	22.7	46.3	77.8	26.5	5.4	6.2	36.0	12.9	13.6	318.1
1947	11.5	33.7	169.7	56.3	112.9	80.7	21.7	3.0	5.0	1.6	3.5	3.4	504.6
1948	0.0	95.0	151.7	24.7	35.6	105.2	40.6	11.0	5.0	6.4	10.0	.4	494.6
1949	0.0	0.0	191.5	31.2	29.5	59.7	5.0	5.0	5.0	2.5	6.9	0.0	336.1
1950	0.0	0.0	5.0	40.3	5.0	14.3	5.0	5.0	5.0	4.5	1.0	1.3	86.4
1951	0.0	1.1	5.0	10.6	5.0	5.0	5.0	13.1	12.1	10.2	13.1	17.0	97.4
1952	.3	6.0	83.2	72.2	5.0	20.4	5.0	5.0	5.0	0.0	.9	.9	203.9
1953	1.5	4.6	5.0	5.0	5.0	42.6	5.0	5.0	5.0	2.2	0.0	1.3	82.3
1954	1.3	15.5	5.0	5.0	5.0	5.0	5.0	5.0	11.6	0.0	.0	.7	57.5
1955	.2	0.0	5.0	43.4	5.0	21.7	14.4	5.0	5.0	0.0	0.0	0.0	99.7
1956	1.7	.2	22.5	19.0	5.0	5.9	5.0	5.0	5.0	0.0	0.0	.7	70.1
1957	1.1	0.0	5.0	5.0	5.0	27.6	5.0	5.0	5.0	1.3	5.0	1.0	66.2
1958	4.2	4.7	5.0	5.0	5.0	21.6	17.1	5.0	5.0	1.1	0.0	2.1	75.6
1959	0.0	1.1	119.7	10.7	9.0	9.1	5.0	5.0	5.0	0.0	.2	3.5	168.4
1960	1.7	3.1	79.9	12.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	121.6
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	.1	0.0	0.0	35.1
1962	0.0	70.3	28.1	5.0	5.0	155.0	90.0	6.2	5.0	22.1	10.0	3.1	402.6
1963	.9	55.6	29.1	13.9	19.4	115.5	25.4	5.0	5.0	3.7	5.0	.9	284.7
1964	1.6	.5	12.7	6.5	16.2	150.1	37.0	5.0	5.0	0.0	0.0	0.0	234.6
1965	3.6	9.5	5.0	125.2	42.9	87.6	21.8	5.0	5.0	11.0	8.1	1.7	327.4
1966	3.7	2.1	5.0	14.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	49.7
1967	1.5	5.7	15.9	5.0	35.1	205.5	89.8	5.0	17.3	9.0	9.8	.2	399.6
1968	.3	19.5	85.7	17.2	28.5	150.6	14.7	12.0	13.3	11.3	12.3	1.4	379.9
1969	4.5	3.6	124.5	65.5	49.7	9.0	26.6	5.0	5.0	0.0	4.9	1.0	290.1
1970	3.2	6.0	32.2	12.3	57.5	110.5	5.3	5.0	5.0	1.3	7.0	1.7	249.1
1971	0.0	106.4	133.3	50.8	44.7	127.3	7.8	5.0	5.0	47.5	15.6	.4	543.6
1972	3.5	73.7	228.5	24.4	39.0	61.3	13.5	5.0	5.0	13.9	15.2	.3	483.6
1973	5.3	6.1	14.5	31.4	84.0	79.1	6.0	5.9	15.3	14.5	12.3	1.7	279.0
1974	21.4	26.1	35.3	39.5	30.9	19.4	5.0	5.0	5.0	9.5	12.6	5.7	216.1
1975	4.7	7.1	36.1	22.9	72.3	150.5	67.7	5.0	5.0	0.0	0.0	0.0	373.4
AVERAGE	2.8	21.6	56.7	27.6	23.6	74.2	19.9	6.4	7.0	8.3	5.5	2.7	264.5
MEDIAN	1.5	4.8	29.1	17.2	17.0	42.6	6.0	5.0	5.0	2.2	4.9	1.0	221.1
80 PERCENTILE	0.0	0.0	5.0	5.0	5.0	5.9	5.0	5.0	5.0	0.0	0.0	0.0	82.3
60 PERCENTILE	.5	5.1	14.5	12.0	5.0	21.7	5.0	5.0	5.0	1.3	1.6	.7	168.4
40 PERCENTILE	1.5	5.0	41.1	24.7	30.9	77.8	14.7	5.0	5.0	4.5	6.9	1.7	279.0
20 PERCENTILE	3.7	26.1	119.7	43.4	40.7	116.5	25.9	5.4	5.0	11.3	12.3	3.5	399.8
MAXIMUM	21.4	207.0	228.3	126.2	150.9	449.5	90.0	25.4	32.9	50.2	15.6	19.0	980.5
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	35.1

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	6.1	1.4	82.4	11.5	5.0	24.0	5.0	5.0	5.0	1.2	1.5	2.9	151.2
1940	0.0	0.0	10.6	5.0	5.0	11.2	23.7	10.9	5.0	54.1	5.6	10.2	141.4
1941	5.2	7.7	11.5	5.0	40.7	40.0	22.1	39.1	40.0	30.8	19.4	23.0	290.6
1942	3.5	8.2	55.8	40.9	62.5	58.7	5.0	5.0	5.0	7.1	5.9	7.5	265.1
1943	8.4	211.5	44.5	65.7	39.4	151.5	18.0	5.0	5.0	1.2	6.3	3.7	594.5
1944	1.3	.2	213.9	101.7	103.9	454.5	60.5	7.3	5.0	4.0	7.9	5.7	1035.9
1945	3.0	12.5	35.1	31.5	25.4	132.0	30.7	13.0	5.0	13.2	11.5	7.1	319.3
1946	13.7	17.9	44.0	35.6	51.8	32.2	34.4	7.5	7.6	39.9	10.9	17.6	371.3
1947	12.8	34.9	179.5	65.2	117.9	85.7	27.6	5.0	5.0	5.0	7.5	7.4	551.9
1948	3.7	47.5	162.2	30.9	41.6	111.2	52.5	13.1	5.0	10.2	14.0	2.7	546.6
1949	1.7	.7	197.1	37.2	45.0	64.7	5.0	5.0	5.0	6.4	10.9	1.1	377.8
1950	0.0	7.0	5.0	41.7	19.5	33.3	5.0	5.0	5.0	6.4	5.0	5.3	138.2
1951	2.4	3.3	5.0	12.2	5.0	5.0	5.0	13.2	13.5	14.1	17.1	20.9	118.8
1952	2.5	9.1	84.6	73.6	57.0	29.4	5.0	5.0	5.0	.7	3.7	3.5	279.0
1953	4.3	3.1	10.1	5.0	5.0	77.7	5.0	12.0	5.0	2.6	2.0	5.1	142.5
1954	4.5	[illegible]	10.7	5.0	5.0	5.0	5.0	5.0	13.0	0.0	1.4	2.6	74.2
1955	1.5	.6	5.0	44.9	5.6	33.8	10.6	5.0	5.0	.0	.2	2.0	120.7
1956	4.6	2.1	31.8	20.5	22.2	25.7	5.0	5.0	5.0	0.0	1.6	4.4	127.9
1957	2.5	1.4	5.0	5.0	5.0	85.9	11.3	5.0	5.0	5.2	9.0	5.0	145.5
1958	5.9	7.4	5.0	5.0	14.3	36.8	30.3	5.5	5.0	2.5	2.7	6.1	127.5
1959	[illegible]	5.9	124.3	22.1	16.4	17.7	5.0	5.0	5.0	1.6	4.2	7.5	218.6
1960	3.8	3.3	81.4	20.5	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	136.5
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.1	2.8	.2	42.1
1962	0.0	75.0	29.0	5.0	7.1	205.1	96.9	10.3	5.0	20.0	14.0	7.1	480.9
1963	4.9	61.5	31.9	17.4	42.0	176.1	20.0	5.0	5.0	5.1	9.0	3.0	387.9
1964	4.5	4.8	14.2	11.8	21.7	173.1	42.9	5.0	5.0	.0	2.3	3.0	287.7
1965	7.5	12.4	5.0	147.1	49.0	92.6	23.9	5.0	5.0	13.6	10.8	5.0	377.6
1966	5.5	4.5	7.4	13.0	5.0	5.0	5.0	5.0	5.0	1.9	2.5	2.8	67.7
1967	3.1	7.7	17.5	11.3	36.9	244.1	91.9	5.0	18.7	12.9	13.8	4.2	467.0
1968	3.7	[illegible]	92.2	16.7	30.3	199.5	19.3	16.5	17.9	15.2	16.3	5.4	460.0
1969	3.5	6.5	125.9	69.5	45.5	13.0	26.7	5.0	5.0	1.1	8.9	3.1	325.7
1970	4.5	11.5	33.6	13.7	86.4	115.5	7.5	5.0	5.0	3.6	10.8	4.4	301.6
1971	2.3	109.9	135.5	55.6	56.8	139.5	12.0	5.0	5.0	51.5	19.6	3.4	597.4
1972	5.1	75.6	229.7	31.4	46.4	75.0	15.6	5.0	5.0	17.8	19.2	4.0	529.9
1973	6.5	10.5	10.5	39.2	105.3	84.1	6.1	10.0	14.7	16.4	16.3	5.7	336.0
1974	25.4	[illegible]	37.3	45.7	44.4	24.4	5.0	5.0	5.0	13.4	16.6	9.7	261.5
1975	8.2	10.3	39.5	24.3	98.4	155.5	73.6	5.0	5.0	.4	.5	.2	421.1
AVERAGE	5.2	24.2	61.3	32.4	39.6	86.5	23.0	7.6	7.4	10.6	6.0	5.7	313.9
MEDIAN	3.4	7.7	31.9	20.5	30.3	54.7	12.0	5.0	5.0	5.1	7.9	4.4	287.7
80 PERCENTILE	1.7	1.4	5.0	5.0	5.0	13.0	5.0	5.0	5.0	1.1	2.3	2.8	127.9
60 PERCENTILE	3.0	5.8	16.6	17.4	19.5	50.8	5.0	5.0	5.0	3.6	5.6	3.7	218.6
40 PERCENTILE	4.3	10.3	44.0	31.5	41.6	84.1	19.3	5.0	5.0	6.4	10.8	5.3	323.7
20 PERCENTILE	6.9	24.6	124.3	45.7	51.3	132.0	30.3	10.3	5.0	15.2	16.3	7.3	467.0
MAXIMUM	25.4	211.5	229.7	147.1	165.9	454.5	96.9	39.1	40.0	54.1	19.6	23.0	1035.9
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	42.1

STUDY NO. 5

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECOMMEND AND ODE FROM BIGHORN

75/10/04.

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	0.1	1.4	52.4	11.5	5.0	24.0	5.0	5.0	5.0	1.2	1.5	2.9	151.2
1940	[illegible]	[illegible]	10.5	5.0	5.0	11.2	23.7	10.9	5.0	54.1	5.6	10.2	141.4
1941	5.2	7.7	11.6	5.0	40.7	40.0	22.1	39.1	40.0	36.6	19.4	23.0	290.6
1942	3.5	3.2	35.6	40.9	62.6	56.7	5.0	5.0	5.0	7.1	5.9	7.3	265.1
1943	[illegible]	217.5	94.5	65.7	39.1	131.5	18.0	5.0	5.0	1.2	6.3	5.7	594.5
1944	1.5	.2	215.6	101.7	165.9	454.5	66.5	7.3	5.0	4.0	7.9	5.7	1055.9
1945	3.6	12.6	35.1	31.5	25.9	132.0	30.7	13.0	5.0	13.2	11.5	7.1	319.3
1946	13.7	14.9	44.0	35.6	51.5	82.6	34.4	7.5	7.6	39.9	16.9	17.6	371.3
1947	12.8	34.9	174.5	65.2	117.9	85.7	27.6	5.0	5.0	5.0	7.5	7.4	551.9
1948	5.7	49.5	162.2	50.9	41.5	111.2	52.5	13.1	5.0	10.2	14.0	2.7	546.6
1949	1.7	.7	147.1	57.2	45.0	54.7	5.0	5.0	5.0	6.4	10.9	1.1	377.8
1950	0.0	0.0	5.0	41.7	19.5	38.5	5.0	5.0	5.0	6.4	5.0	5.3	138.2
1951	2.4	3.5	5.0	12.2	5.0	5.0	5.0	15.2	13.5	14.1	17.1	20.9	118.8
1952	2.3	9.1	84.6	73.6	57.0	29.4	5.0	5.0	5.0	.7	3.7	3.5	279.0
1953	4.5	7.1	10.1	5.0	5.0	77.7	5.0	12.0	5.0	2.6	2.0	5.1	142.5
1954	4.5	15.5	10.7	5.0	5.0	5.0	5.0	5.0	13.0	0.0	1.4	2.6	74.2
1955	1.5	.5	5.0	44.9	5.3	33.8	16.6	5.0	5.0	.0	.2	2.0	120.7
1956	4.5	2.1	31.8	20.5	22.2	25.7	5.0	5.0	5.0	0.0	1.6	4.4	127.9
1957	2.5	1.4	5.0	5.0	5.0	85.9	11.3	5.0	5.0	5.2	9.0	5.0	145.5
1958	5.9	7.4	5.0	5.0	14.3	30.8	30.5	5.5	5.0	2.5	2.7	6.1	127.5
1959	3.5	5.9	124.3	22.1	16.4	19.7	5.0	5.0	5.0	1.6	4.2	7.5	218.6
1960	3.8	5.3	81.4	20.5	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	136.5
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.1	2.8	.2	42.1
1962	0.0	75.6	29.6	5.0	7.1	206.1	96.9	10.3	5.0	26.0	14.0	7.1	480.9
1963	4.9	60.5	31.9	17.4	42.0	176.1	25.0	5.0	5.0	5.1	9.0	3.0	387.9
1964	4.5	4.0	14.2	11.6	21.7	173.1	42.9	5.0	5.0	.0	2.5	3.0	287.7
1965	7.5	12.4	5.0	147.1	49.5	92.6	25.9	5.0	5.0	13.6	10.8	5.0	377.6
1966	5.5	4.5	7.4	18.0	5.0	5.0	5.0	5.0	5.0	1.9	2.5	2.8	67.7
1967	3.1	7.7	17.3	11.3	30.9	244.1	91.9	5.0	18.7	12.9	13.8	4.2	467.0
1968	3.7	25.0	92.2	15.7	50.3	199.5	19.3	18.5	17.9	15.2	16.3	5.4	460.0
1969	6.5	6.5	120.9	69.5	45.5	13.0	28.7	5.0	5.0	1.1	8.9	3.1	323.7
1970	4.5	11.5	33.6	13.7	86.4	115.5	7.5	5.0	5.0	3.6	10.8	4.4	301.6
1971	2.5	109.9	135.5	55.6	56.6	139.5	12.0	5.0	5.0	51.5	19.6	3.4	597.4
1972	5.1	75.6	229.7	31.4	45.4	75.0	15.6	5.0	5.0	17.8	19.2	4.0	529.9
1973	6.5	10.0	15.4	39.2	103.3	34.1	6.1	10.0	14.7	18.4	16.5	5.7	336.0
1974	25.4	29.6	37.3	45.7	44.4	24.4	5.0	5.0	5.0	13.4	16.6	9.7	261.5
1975	8.2	10.5	34.5	24.5	98.4	155.5	73.6	5.0	5.0	.4	.5	.2	421.1
AVERAGE	5.2	24.2	61.8	32.4	38.8	88.3	23.0	7.8	7.4	10.8	8.6	5.7	313.9
MEDIAN	3.5	7.7	31.9	20.5	30.5	54.7	12.0	5.0	5.0	5.1	7.9	4.4	287.7
80 PERCENTILE	1.7	1.1	5.0	5.0	5.0	13.0	5.0	5.0	5.0	1.1	2.3	2.6	127.9
60 PERCENTILE	3.5	5.4	15.5	17.4	19.5	36.8	5.0	5.0	5.0	3.6	5.6	3.7	216.6
40 PERCENTILE	4.5	10.6	44.0	31.5	41.6	84.1	19.3	5.0	5.0	6.4	10.6	5.3	323.7
20 PERCENTILE	6.5	29.6	124.3	45.7	51.3	132.0	30.5	10.5	5.0	15.2	16.5	7.3	467.0
MAXIMUM	25.4	216.5	229.7	147.1	165.9	454.5	96.9	39.1	40.0	54.1	19.6	23.0	1055.9
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	42.1

2000 RECOMMEND AND BASELINE FROM YELLO

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	6.1	1.4	62.4	11.5	5.0	24.0	5.0	5.0	5.0	1.2	1.5	2.9	151.2
1940	0.0	5.0	10.6	5.0	5.0	11.2	23.7	10.9	5.0	54.1	5.6	10.2	141.4
1941	5.2	7.7	11.5	5.0	40.7	40.0	22.1	39.1	40.0	36.8	19.4	23.0	290.6
1942	3.5	8.2	53.8	40.9	62.5	58.7	5.0	5.0	5.0	7.1	5.9	7.3	263.1
1943	8.9	210.5	99.5	65.7	39.4	131.3	18.0	5.0	5.0	1.2	6.3	3.7	594.5
1944	1.3	.2	215.5	101.7	165.9	454.5	66.5	7.5	5.0	4.0	7.9	5.7	1035.9
1945	3.6	12.5	55.1	31.5	23.9	132.0	30.7	13.0	5.0	13.2	11.5	7.1	319.3
1946	13.7	19.9	44.0	35.5	51.3	82.8	34.4	7.5	7.6	39.9	16.9	17.6	371.3
1947	12.8	54.9	179.6	63.2	117.9	85.7	27.6	5.0	5.0	5.0	7.5	7.4	551.9
1948	3.7	99.5	162.2	50.9	41.6	111.2	52.5	13.1	5.0	10.2	14.0	2.7	546.6
1949	1.7	.7	197.1	37.2	45.0	64.7	5.0	5.0	5.0	6.4	10.9	1.1	377.8
1950	0.0	0.0	5.0	41.7	19.5	38.3	5.0	5.0	5.0	8.4	5.0	5.3	138.2
1951	2.4	3.3	5.0	12.2	5.0	5.0	5.0	15.2	13.5	14.1	17.1	20.9	118.8
1952	2.3	9.1	84.5	73.6	57.0	29.4	5.0	5.0	5.0	.7	3.7	3.5	279.0
1953	4.3	8.1	10.1	5.0	5.0	77.7	5.0	12.0	5.0	2.6	2.0	5.1	142.5
1954	4.6	15.0	10.7	5.0	5.0	5.0	5.0	5.0	13.0	0.0	1.4	2.6	74.2
1955	1.6	.5	5.0	44.9	5.8	33.8	16.6	5.0	5.0	.0	.2	2.0	120.7
1956	4.6	2.1	31.8	20.5	22.2	25.7	5.0	5.0	5.0	0.0	1.6	4.4	127.9
1957	2.6	1.4	5.0	5.0	5.0	85.9	11.3	5.0	5.0	5.2	9.0	5.0	145.5
1958	6.9	7.4	5.0	5.0	14.5	36.8	30.3	5.5	5.0	2.5	2.7	6.1	127.5
1959	3.8	3.9	124.3	22.1	15.4	19.7	5.0	5.0	5.0	1.6	4.2	7.5	216.6
1960	3.8	5.8	81.4	20.5	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	136.5
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.1	2.8	.2	42.1
1962	0.0	73.8	29.5	5.0	7.1	206.1	96.9	10.3	5.0	26.0	14.0	7.1	480.9
1963	4.9	50.3	31.9	17.4	42.0	176.1	28.0	5.0	5.0	5.1	9.0	3.0	387.9
1964	4.5	4.0	14.2	11.8	21.7	173.1	42.9	5.0	5.0	.0	2.3	3.0	287.7
1965	7.5	12.4	5.0	147.1	49.6	92.6	23.9	5.0	5.0	13.6	10.8	5.0	377.6
1966	5.5	4.5	7.4	16.0	5.0	5.0	5.0	5.0	5.0	1.9	2.5	2.8	67.7
1967	3.1	7.7	17.3	11.3	36.9	244.1	91.9	5.0	16.7	12.9	13.8	4.2	467.0
1968	3.7	23.0	92.2	15.7	30.5	199.5	19.3	18.5	17.9	15.2	16.3	5.4	460.0
1969	6.5	6.5	123.9	69.5	45.5	13.0	28.7	5.0	5.0	1.1	8.9	3.1	323.7
1970	4.5	11.5	55.6	13.7	30.4	115.5	7.5	5.0	5.0	3.6	10.8	4.4	301.6
1971	2.6	109.9	155.5	55.6	56.6	139.5	12.0	5.0	5.0	51.5	19.6	3.4	597.4
1972	5.1	75.5	229.7	31.4	46.4	75.0	15.6	5.0	5.0	17.8	19.2	4.0	529.9
1973	8.5	10.6	16.8	39.2	103.5	84.1	8.1	10.0	14.7	18.4	16.3	5.7	336.0
1974	25.4	24.6	37.3	45.7	44.4	24.4	5.0	5.0	5.0	13.4	16.6	9.7	261.5
1975	6.2	10.5	39.5	24.5	93.4	155.5	73.6	5.0	5.0	.4	.5	.2	421.1
AVERAGE	5.2	24.2	61.6	32.4	33.8	88.3	23.0	7.6	7.4	10.8	8.6	5.7	313.9
MEDIAN	3.3	7.7	31.9	20.5	30.5	54.7	12.0	5.0	5.0	5.1	7.9	4.4	287.7
80 PERCENTILE	1.7	1.4	5.0	5.0	5.0	13.0	5.0	5.0	5.0	1.1	2.3	2.8	127.9
60 PERCENTILE	3.5	5.5	15.3	17.4	19.5	36.8	5.0	5.0	5.0	3.6	5.6	3.7	216.6
40 PERCENTILE	4.5	10.6	44.0	31.5	41.6	84.1	19.3	5.0	5.0	8.4	10.8	5.3	323.7
20 PERCENTILE	6.9	24.6	124.3	45.7	51.3	132.0	30.3	10.3	5.0	15.2	16.3	7.3	467.0
MAXIMUM	25.4	210.5	229.7	147.1	165.9	454.5	96.9	39.1	40.0	54.1	19.6	23.0	1035.9
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	42.1

2000 RECOMMEND AND USE FROM YELLOWSTON

POWDER RIVER AT LOCATE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	6.1	1.4	82.4	11.5	5.0	24.0	5.0	5.0	5.0	1.2	1.5	2.9	151.2
1940	0.0	0.0	10.6	5.0	5.0	11.2	23.7	10.9	5.0	54.1	5.6	10.2	141.4
1941	5.2	7.7	11.8	5.0	40.7	40.0	22.1	39.1	40.0	36.6	19.4	23.0	290.6
1942	3.5	5.5	55.8	40.9	62.5	58.7	5.0	5.0	5.0	7.1	5.9	7.3	263.1
1943	6.9	210.5	99.5	55.7	59.4	131.5	18.0	5.0	5.0	1.2	6.5	3.7	594.5
1944	1.3	.2	215.6	101.7	165.4	454.5	66.5	7.5	5.0	4.0	7.9	5.7	1035.9
1945	3.6	12.6	35.1	31.5	23.4	132.0	30.7	15.0	5.0	13.2	11.5	7.1	319.3
1946	13.7	19.4	44.0	55.6	51.3	82.8	34.4	7.5	7.6	39.9	16.9	17.6	371.3
1947	12.6	34.9	179.8	55.2	117.9	65.7	27.6	5.0	5.0	5.0	7.5	7.4	551.9
1948	3.7	49.5	162.2	30.9	41.6	111.2	52.5	13.1	5.0	10.2	14.0	2.7	546.6
1949	1.7	.7	197.1	37.2	45.0	54.7	5.0	5.0	5.0	5.4	10.9	1.1	377.8
1950	0.0	0.0	5.0	41.7	19.5	38.3	5.0	5.0	5.0	6.4	5.0	5.3	136.2
1951	2.4	3.3	5.0	12.2	5.0	5.0	5.0	15.2	13.5	14.1	17.1	20.9	118.8
1952	2.3	9.1	84.6	75.6	57.0	29.4	5.0	5.0	5.0	.7	3.7	3.5	279.0
1953	4.5	5.1	10.1	5.0	5.0	77.7	5.0	12.0	5.0	2.6	2.0	5.1	142.5
1954	4.5	15.5	10.7	5.0	5.0	5.0	5.0	5.0	13.0	0.0	1.4	2.6	74.2
1955	1.6	.8	5.0	44.9	5.3	33.6	16.6	5.0	5.0	.0	.2	2.0	120.7
1956	4.5	2.1	31.3	20.5	22.2	25.7	5.0	5.0	5.0	0.0	1.6	4.4	127.9
1957	2.6	1.4	5.0	5.0	5.0	35.9	11.3	5.0	5.0	5.2	9.0	5.0	145.5
1958	6.9	7.4	5.0	5.0	14.3	36.8	30.5	5.5	5.0	2.5	2.7	6.1	127.5
1959	3.8	3.9	124.5	22.1	16.4	19.7	5.0	5.0	5.0	1.6	4.2	7.5	218.6
1960	5.5	5.8	81.4	20.5	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	136.5
1961	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.1	2.8	.2	42.1
1962	0.0	73.8	29.6	5.0	7.1	206.1	96.9	10.3	5.0	26.0	14.0	7.1	480.9
1963	4.9	50.5	31.9	17.4	42.0	176.1	26.0	5.0	5.0	5.1	9.0	3.0	387.9
1964	4.5	4.0	14.2	11.6	21.7	173.1	42.9	5.0	5.0	.0	2.3	3.0	287.7
1965	7.6	12.4	5.0	147.1	49.6	92.6	23.9	5.0	5.0	13.6	10.8	5.0	377.6
1966	5.5	4.5	7.4	18.0	5.0	5.0	5.0	5.0	5.0	1.9	2.5	2.8	67.7
1967	5.1	7.7	17.5	11.3	35.9	244.1	91.9	5.0	18.7	12.9	13.8	4.2	467.0
1968	5.7	23.0	92.2	18.7	30.3	199.5	19.3	18.5	17.9	15.2	16.5	5.4	460.0
1969	5.5	6.3	125.4	69.5	45.5	13.0	24.7	5.0	5.0	1.1	8.9	3.1	325.7
1970	4.6	11.5	35.6	13.7	86.4	115.5	7.5	5.0	5.0	3.6	10.8	4.4	301.6
1971	2.5	109.9	136.5	55.6	56.8	139.5	12.0	5.0	5.0	51.5	19.6	3.4	597.4
1972	5.1	75.6	229.7	31.4	46.4	75.0	15.6	5.0	5.0	17.8	19.2	4.0	529.9
1973	3.5	10.0	15.5	39.2	105.3	84.1	8.1	10.0	14.7	18.4	16.3	5.7	336.0
1974	25.4	24.6	37.3	45.7	44.4	24.4	5.0	5.0	5.0	13.4	16.6	9.7	261.5
1975	5.2	10.3	39.5	24.3	95.4	155.5	73.6	5.0	5.0	.4	.5	.2	421.1
AVERAGE	5.2	24.2	61.6	32.4	38.5	86.3	23.0	7.8	7.4	10.8	8.6	5.7	313.9
MEDIAN	3.5	7.7	31.9	20.5	30.3	64.7	12.0	5.0	5.0	5.1	7.9	4.4	287.7
80 PERCENTILE	1.7	1.4	5.0	5.0	5.0	13.0	5.0	5.0	5.0	1.1	2.3	2.8	127.9
60 PERCENTILE	3.5	5.5	15.5	17.4	19.5	36.8	5.0	5.0	5.0	3.6	5.6	3.7	218.6
40 PERCENTILE	4.5	10.6	44.0	31.5	41.6	84.1	19.3	5.0	5.0	6.4	10.8	5.3	325.7
20 PERCENTILE	5.9	29.6	124.5	45.7	51.3	132.0	30.3	10.3	5.0	15.2	16.3	7.3	467.0
MAXIMUM	25.4	210.5	229.7	147.1	165.4	454.5	96.9	39.1	40.0	54.1	19.6	25.0	1035.9
MINIMUM	0.0	0.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	0.0	0.0	0.0	42.1

YELLOWSTONE RIVER AT SIDNEY

1. 2000 Recommend Development Minus Gasif

   This is the MRBC baseline to which energy assessments are added. This is based on the Yellowstone recommended plan.

2. 2000 Recommend and Baseline Development

   This is the water supply for alternative 1 where the Section 13(a) baseline energy development scenario was added to the recommend development.

3. 2000 Recommend and DOE Development

   This is the water supply for alternative 1 where the DOE accelerated energy development scenario was added to the recommend development.

4. 2000 Recommend and Baseline from Bighorn

   This is the water supply for alternative 2 where the Section 13(a) baseline energy development scenario was added to the recommend development.

5. 2000 Recommend and DOE from Bighorn

   This is the water supply for alternative 2 where the DOE accelerated energy development scenario was added to the recommend development.

6. 2000 Recommend and Baseline from Yellowstone

   This is the water supply for alternative 3 where the Section 13(a) baseline energy development scenario was added to the recommend development.

7. 2000 Recommend and DOE from Yellowstone

   This is the water supply for alternative 3 where the DOE accelerated energy development scenario was added to the recommend development.

YELLOWSTONE LEVEL B OPERATION STUDY
2000 RECOMMEND DEVELOPMENT MINUS GASIF

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	341.0	[illegible]	595.9	344.2	767.5	1066.5	330.1	77.0	66.2	333.4	357.8	314.8	5092.6
1940	170.7	267.2	241.5	513.5	585.5	1239.5	108.6	0.0	46.4	546.3	304.9	306.0	4180.0
1941	222.4	255.1	361.5	337.9	557.4	1057.0	263.5	228.2	718.9	609.9	544.5	479.5	5637.2
1942	464.5	499.2	680.4	529.5	905.6	1712.5	665.5	248.6	236.2	467.6	490.7	349.0	7645.6
1943	410.4	572.5	1161.9	942.8	902.7	2569.4	2245.0	586.5	384.9	447.4	477.5	428.1	11477.6
1944	419.4	402.9	1012.0	727.0	676.4	3092.9	1444.4	311.1	300.6	460.0	444.5	322.7	9814.4
1945	425.5	405.7	729.7	376.2	472.9	1655.0	1568.0	439.3	361.4	568.0	509.5	360.9	7877.6
1946	515.6	428.5	661.0	438.9	635.3	1595.4	573.8	128.2	346.7	608.7	510.9	420.9	6664.9
1947	559.5	424.2	1144.5	755.4	1525.1	1676.2	1554.8	392.7	337.7	537.2	551.9	466.7	9397.1
1948	465.2	476.9	729.5	555.6	664.5	2027.1	1065.1	294.6	157.2	425.2	459.7	266.2	8363.1
1949	504.4	354.5	655.4	560.4	617.5	1455.9	491.0	112.5	216.6	436.5	435.7	277.5	6102.0
1950	296.7	399.5	705.7	629.5	495.1	1654.7	1245.6	493.7	379.9	610.2	501.5	495.1	8107.3
1951	476.5	471.5	634.6	541.0	684.0	1296.5	1236.2	653.7	474.5	597.1	574.2	555.6	8095.6
1952	471.7	555.3	732.8	1514.8	1273.5	1757.1	663.4	294.4	237.1	369.4	385.9	336.2	8590.2
1953	403.0	379.0	422.4	500.5	593.2	1756.6	690.1	209.5	145.9	344.2	388.8	383.3	5816.2
1954	200.4	421.7	323.5	455.7	821.1	924.7	857.3	255.3	197.1	380.4	435.5	383.0	5661.5
1955	231.4	275.5	276.4	515.6	567.4	1170.7	536.5	48.5	71.1	375.2	363.4	370.8	4906.0
1956	345.1	296.4	565.3	531.4	985.5	2094.0	592.8	235.3	235.1	359.4	446.1	351.9	7136.3
1957	352.5	349.7	551.4	553.4	995.0	2601.5	1282.7	273.5	355.3	484.3	508.9	425.6	8733.8
1958	413.7	531.2	544.4	373.9	755.5	1295.2	479.2	76.4	155.8	365.6	384.9	309.1	5496.8
1959	352.1	535.5	1158.1	405.3	467.4	1714.8	775.5	107.9	174.1	470.7	397.2	444.9	6806.4
1960	243.9	332.0	743.7	410.0	376.0	1024.3	29.6	0.0	82.9	510.5	376.9	258.3	4190.2
1961	292.2	289.9	318.6	145.7	173.7	1079.8	0.0	0.0	295.6	559.1	523.3	323.3	4007.3
1962	323.5	542.7	535.6	527.6	680.9	2118.6	1361.7	386.7	360.4	542.4	478.6	424.7	8486.7
1963	397.1	576.7	612.1	419.1	1006.8	2405.1	766.7	157.0	325.3	413.9	460.3	332.6	7972.5
1964	451.7	450.4	425.2	469.1	841.1	2261.8	1601.2	349.6	354.6	410.6	443.5	349.1	8389.2
1965	509.9	490.6	570.5	1184.6	1007.7	2644.6	2322.9	642.8	543.4	687.2	456.2	445.8	11597.3
1966	435.1	422.4	668.8	359.6	552.8	698.0	212.1	17.4	105.4	368.2	417.0	434.2	4891.0
1967	342.7	345.0	406.6	469.2	762.5	2405.7	2452.6	469.8	373.6	564.3	545.4	489.2	9647.0
1968	675.4	652.5	659.4	430.2	537.8	2417.0	1190.6	519.1	604.2	647.0	614.8	487.0	9650.7
1969	554.2	510.2	1143.4	697.2	956.9	1250.2	1125.7	283.7	243.3	475.1	471.0	480.4	8193.4
1970	537.3	555.4	525.2	550.2	1136.3	2594.1	1295.9	309.8	337.1	521.8	509.9	506.4	8950.4
1971	603.2	1040.2	1109.5	902.4	1148.9	2601.4	1470.4	467.8	496.2	890.3	637.4	465.9	11841.5
1972	514.0	635.4	1540.1	659.1	965.9	2075.5	674.3	420.1	447.6	577.4	669.7	439.8	9898.0
1973	575.1	569.5	644.0	585.5	1161.3	1658.8	581.4	290.7	492.8	640.6	564.6	531.7	8397.8
1974	543.2	544.2	588.0	665.5	603.1	2455.7	1612.4	453.2	420.0	571.7	629.1	506.6	9792.7
1975	565.3	445.1	755.5	673.4	1465.1	2240.9	2657.2	673.9	409.0	10.1	20.0	15.5	9969.2
AVERAGE	410.8	454.5	678.1	565.1	611.9	1651.3	1033.5	295.0	310.0	496.2	470.1	387.7	7770.0
MEDIAN	410.8	422.4	655.4	527.6	617.5	1712.5	863.3	283.7	325.3	475.1	471.0	383.3	8095.6
80 PERCENTILE	243.7	332.0	422.4	373.9	537.8	1170.7	479.2	76.4	145.9	369.4	388.8	322.7	5496.8
60 PERCENTILE	365.5	399.5	565.0	435.9	762.5	1654.7	690.1	235.3	237.1	447.4	446.1	355.6	7136.3
40 PERCENTILE	451.7	476.9	645.9	555.6	675.4	2075.5	1198.6	309.8	354.6	546.3	501.5	420.1	8389.2
20 PERCENTILE	509.9	555.4	680.2	697.2	995.0	2417.0	1444.4	453.2	420.0	608.7	545.4	479.5	9647.0
MAXIMUM	675.4	1040.2	1540.1	1514.8	1525.1	3092.9	2452.6	655.7	718.9	890.3	669.7	531.7	11841.5
MINIMUM	170.7	255.1	276.4	145.7	173.7	698.0	0.0	0.0	46.4	310.5	304.9	258.3	4007.3

MRBC SEC 13A ENERGY ASSESSMENT
2000 RECOMEND AND BASELINE DEVELOPMEN

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	388.6	279.0	694.9	397.3	764.0	1064.9	333.8	72.7	62.7	331.1	355.0	311.1	5055.0
1940	168.8	265.5	289.6	310.1	579.5	1234.7	103.7	0.0	42.9	542.8	301.3	304.3	4143.2
1941	219.2	252.9	357.6	334.4	553.0	1043.3	242.0	217.0	710.7	806.4	540.9	475.8	5753.1
1942	460.8	496.0	876.9	524.3	897.7	1706.3	859.0	244.3	232.7	464.1	487.1	346.7	7595.8
1943	407.9	869.6	1153.1	989.5	910.4	2581.4	2237.0	582.0	381.4	444.4	473.9	424.4	11455.0
1944	416.3	401.0	1010.0	716.1	875.4	3088.1	1438.6	306.1	297.3	457.0	440.7	319.0	9765.6
1945	424.5	403.6	727.2	373.5	463.8	1654.4	1562.2	434.2	357.9	564.5	505.9	357.2	7829.0
1946	511.9	425.3	658.6	434.4	630.7	1391.6	568.0	123.1	342.7	605.2	507.3	417.2	6616.1
1947	366.3	427.1	1139.5	751.8	1323.5	1673.4	1349.0	388.4	334.2	583.7	548.3	465.0	9350.1
1948	459.5	453.7	723.5	552.3	859.7	2622.3	1059.3	289.7	153.7	421.7	456.1	262.9	8314.5
1949	301.3	332.1	653.1	553.5	814.5	1454.1	486.7	108.2	213.1	433.0	432.1	274.5	6056.1
1950	296.8	397.8	702.2	827.6	482.4	1643.8	1241.3	489.4	376.4	606.7	497.9	491.4	8053.7
1951	472.9	468.6	631.2	639.0	680.2	1292.5	1231.9	648.6	470.5	593.6	570.6	351.9	8051.4
1952	468.7	552.6	741.0	1319.7	1247.9	1752.3	659.1	295.1	233.6	366.9	383.3	332.7	8352.8
1953	399.3	375.8	415.7	296.8	389.4	1749.8	685.8	204.4	142.4	341.9	385.3	379.6	5766.2
1954	196.7	418.5	324.5	453.2	817.3	920.7	853.0	251.0	193.1	378.6	433.1	380.2	5620.0
1955	229.1	276.4	276.9	612.0	563.3	1159.9	531.2	44.2	67.6	373.8	361.3	367.1	4862.7
1956	341.4	293.6	662.1	529.5	969.9	2093.4	588.5	229.0	231.6	358.0	442.6	348.2	7087.8
1957	350.0	346.6	549.9	551.9	991.2	2588.1	1275.8	269.2	351.8	480.8	505.3	421.9	8682.4
1958	410.0	348.0	541.5	370.4	752.8	1289.0	473.8	73.6	132.3	363.2	381.3	305.4	5441.4
1959	328.4	332.1	1152.9	398.7	482.2	1723.3	774.2	103.6	170.6	467.3	393.6	441.2	6768.0
1960	240.7	328.8	741.8	403.9	372.2	1020.3	25.3	0.0	79.4	308.8	377.1	256.4	4154.7
1961	290.3	288.2	315.2	143.2	174.9	1075.8	0.0	0.0	292.1	555.5	519.7	321.2	3976.1
1962	321.7	539.5	536.8	524.1	875.0	2089.8	1351.9	381.7	356.9	538.9	475.0	421.0	8412.1
1963	393.4	673.5	609.2	415.1	984.9	2430.9	763.6	152.7	321.8	411.6	456.7	329.6	7943.0
1964	428.0	447.2	422.3	463.5	833.0	2259.8	1595.4	345.5	351.1	408.9	439.9	345.4	8340.0
1965	506.2	495.4	569.0	1176.7	1083.1	2640.0	2319.0	638.5	539.9	683.7	452.6	445.1	11549.2
1966	432.2	419.2	665.6	355.6	549.0	894.0	207.8	13.1	101.9	364.7	413.4	430.5	4847.0
1967	340.1	342.1	404.6	465.3	758.1	2400.4	2448.9	465.5	369.8	580.8	541.8	485.5	9602.9
1968	671.7	649.1	856.7	434.2	538.7	2398.6	1192.8	513.5	600.4	643.5	611.2	483.3	9593.7
1969	550.5	507.0	1139.7	693.6	954.3	1245.4	1121.9	279.4	239.8	472.2	467.4	477.4	8148.5
1970	504.9	552.2	524.2	346.3	1126.4	2389.3	1290.8	305.5	333.6	518.7	506.3	502.8	8900.9
1971	599.5	1043.7	1106.3	903.4	1139.5	2596.6	1465.3	463.5	492.7	886.8	633.8	462.2	11793.3
1972	511.3	633.7	1538.1	634.9	959.8	2068.7	869.2	415.8	444.1	673.9	666.1	436.1	9851.8
1973	571.4	566.1	641.9	579.0	1157.6	1654.0	576.3	283.6	490.8	637.3	661.0	528.0	8347.[illegible]
1974	539.5	541.0	585.6	662.5	796.9	2450.9	1608.1	448.9	416.5	568.2	625.5	502.9	9746.[illegible]
1975	562.6	441.9	784.6	671.5	1452.2	2244.1	2651.4	669.6	405.5	8.7	18.1	13.8	9934.[illegible]
AVERAGE	407.6	456.4	695.2	562.4	805.5	1826.7	1028.2	290.6	306.4	493.1	466.7	384.3	[illegible]
MEDIAN	407.9	419.2	653.1	524.1	814.5	1706.3	859.0	279.4	321.8	472.2	467.4	380.2	8051.4
80 PERCENTILE	296.8	328.8	415.7	370.4	538.7	1159.9	473.8	73.6	142.4	366.9	385.3	319.0	5441.4
60 PERCENTILE	366.3	397.8	585.6	434.4	752.8	1643.8	685.8	229.0	233.6	444.4	442.6	351.9	7087.8
40 PERCENTILE	428.0	453.7	694.9	552.3	875.0	2068.7	1192.8	305.5	351.1	542.8	497.9	424.4	8340.0
20 PERCENTILE	506.2	552.2	876.9	693.6	984.9	2430.9	1438.6	448.9	416.5	605.2	541.8	475.8	9593.7
MAXIMUM	671.7	1043.7	1538.1	1319.7	1323.5	3088.1	2448.9	648.6	710.7	886.8	666.1	528.0	11793.3
MINIMUM	168.8	252.9	276.9	143.2	174.9	894.0	0.0	0.0	42.9	308.8	301.3	256.4	3976.1

2000 RECOMMEND AND DUE DEVELOPMENT

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	384.5	276.6	591.5	393.9	764.1	1055.2	334.0	72.9	62.8	327.5	351.5	307.2	5021.7
1940	166.0	263.9	282.0	310.2	579.6	1224.2	102.5	0.0	43.0	537.7	296.2	299.8	4109.2
1941	215.2	249.4	355.6	334.5	552.0	1042.3	242.2	210.3	708.4	601.3	535.8	470.7	5716.7
1942	455.5	491.6	672.3	514.5	669.4	1703.7	659.2	244.5	232.6	459.0	482.6	342.9	7529.2
1943	404.1	865.1	1145.4	974.8	694.1	2506.6	2235.6	582.2	381.5	441.6	468.8	419.7	11322.7
1944	413.3	593.5	1005.6	706.6	647.3	3082.0	1431.4	304.9	297.4	453.2	436.6	315.0	9693.0
1945	420.7	400.3	722.9	371.4	462.4	1624.2	1555.0	433.1	358.0	559.4	500.8	352.9	7761.0
1946	507.0	422.0	654.3	416.3	624.5	1385.5	560.8	122.0	341.9	600.1	502.2	412.2	6548.6
1947	362.5	423.7	1125.5	743.7	1317.3	1667.3	1341.8	388.6	334.3	579.2	543.2	459.9	9287.0
1948	454.7	444.2	715.5	537.7	653.5	2616.2	1052.1	285.6	153.8	416.7	451.0	259.1	8248.0
1949	297.9	329.6	546.6	551.0	792.0	1448.0	486.9	106.4	213.2	427.9	427.0	271.7	6000.2
1950	294.0	395.3	699.7	624.2	476.9	1526.9	1241.5	489.6	376.5	601.6	492.8	486.3	8005.4
1951	469.4	465.5	631.2	635.6	680.3	1292.7	1232.1	647.4	469.7	586.5	565.5	347.0	8024.6
1952	464.9	548.5	727.5	1274.6	1215.3	1742.1	659.3	295.3	233.7	364.1	379.3	328.9	8233.5
1953	394.9	371.3	415.6	295.9	589.5	1703.7	686.0	198.4	142.5	340.1	382.0	374.8	5694.0
1954	192.5	414.9	519.5	455.5	817.4	920.9	853.2	251.2	192.3	378.5	429.4	376.4	5598.8
1955	226.5	273.5	274.4	610.9	563.4	1154.7	530.1	44.4	67.7	373.8	358.4	364.1	4841.9
1956	337.4	290.3	653.2	526.1	965.6	2040.4	588.7	229.2	231.7	356.0	439.7	343.4	7003.8
1957	345.2	344.1	547.4	549.5	991.5	2504.4	1272.3	269.4	351.9	475.7	500.2	415.8	8569.2
1958	406.1	344.4	541.0	370.5	752.4	1276.2	461.9	73.8	132.4	359.5	377.4	300.3	5396.0
1959	325.5	326.4	1149.5	390.0	475.4	1685.0	774.4	103.8	170.7	464.5	386.5	436.1	6690.7
1960	236.9	325.2	738.4	398.1	372.3	1020.5	25.5	0.0	79.5	306.6	374.2	253.6	4133.0
1961	287.5	285.7	315.2	143.3	175.0	1076.0	0.0	0.0	289.2	550.2	515.4	316.2	3955.7
1962	318.8	534.9	533.4	524.2	675.1	2064.6	1350.7	380.5	357.0	533.8	469.9	415.9	8358.8
1963	388.3	669.0	605.5	414.2	980.9	2309.5	762.4	152.9	321.9	407.6	451.6	325.6	7789.9
1964	424.1	442.7	421.5	460.4	631.9	2205.8	1588.2	345.7	351.2	406.1	436.4	341.4	8255.1
1965	501.1	491.6	565.5	1154.0	1075.2	2633.9	2313.7	638.7	540.0	679.9	448.7	440.8	11484.0
1966	426.4	415.5	662.4	352.2	549.1	894.2	208.0	13.3	102.0	361.7	409.7	426.7	4823.5
1967	535.3	338.8	401.2	459.5	757.0	2339.3	2443.6	465.7	369.0	575.7	536.7	480.4	9503.3
1968	667.2	644.6	652.5	435.5	525.4	2370.3	1189.7	508.4	589.8	636.4	506.1	478.2	9503.9
1969	345.4	505.1	1135.5	688.5	940.5	1240.2	1116.6	279.6	239.9	469.4	462.3	473.6	8100.3
1970	501.1	547.7	520.8	345.4	1095.2	2383.2	1284.6	305.7	333.7	514.9	501.4	499.0	8837.7
1971	595.5	1036.0	1102.4	687.4	1131.0	2583.2	1462.1	463.7	492.8	881.7	628.7	458.2	11724.9
1972	507.5	630.4	1534.7	624.5	947.6	2054.3	868.1	416.0	444.2	668.8	661.0	431.4	9788.6
1973	567.4	562.5	638.5	575.8	1127.0	1647.9	575.2	282.5	490.0	632.2	655.9	522.9	8277.7
1974	534.4	536.5	585.1	654.6	775.5	2444.8	1606.5	449.1	416.6	563.1	620.4	497.6	9684.2
1975	557.9	437.8	781.2	668.1	1422.4	2238.0	2544.2	669.8	405.6	6.6	15.7	11.4	9858.9
AVERAGE	403.7	452.7	591.1	555.9	796.6	1605.7	1025.6	290.0	305.9	484.4	462.2	380.0	7658.6
MEDIAN	404.1	415.5	646.5	514.5	792.0	1635.0	859.2	279.6	321.9	469.4	462.3	376.4	8005.4
80 PERCENTILE	294.0	325.2	413.5	370.5	525.9	1154.7	461.9	73.8	142.5	364.1	382.0	315.0	5396.0
60 PERCENTILE	362.5	395.3	585.1	435.3	752.4	1624.2	686.0	229.2	233.7	441.6	439.7	347.0	7003.8
40 PERCENTILE	424.1	444.2	641.5	544.5	853.5	2040.4	1189.7	504.9	351.2	537.7	492.8	419.7	8248.0
20 PERCENTILE	501.1	547.7	872.3	683.5	980.9	2383.2	1431.4	449.1	416.6	600.1	536.7	470.7	9503.3
MAXIMUM	667.2	1036.0	1534.7	1274.6	1317.3	3082.0	2443.6	647.4	708.4	881.7	661.0	522.9	11724.9
MINIMUM	166.0	249.4	274.4	143.3	175.0	894.2	0.0	0.0	43.0	306.6	296.2	253.6	3955.7

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	384.1	278.2	643.2	345.5	765.7	1064.2	353.6	72.5	63.0	329.7	354.1	311.1	5047.0
1940	167.1	264.0	287.9	310.0	579.2	1235.2	104.2	0.0	43.2	542.7	501.2	304.3	4138.9
1941	217.2	252.9	357.9	334.3	535.3	1052.9	256.9	225.6	715.7	806.3	540.8	475.8	5791.5
1942	460.8	490.0	676.5	525.9	699.5	1708.4	858.8	244.1	253.0	464.0	467.0	346.1	7600.1
1943	407.1	464.0	1155.2	989.1	498.6	2355.3	2230.4	581.6	381.7	443.5	475.8	424.4	11431.9
1944	413.7	544.7	1005.5	723.4	672.7	3088.6	1459.8	306.5	297.6	456.4	440.6	519.0	9768.6
1945	424.5	402.5	725.0	372.6	465.3	1653.9	1563.4	434.7	358.2	564.4	505.8	557.2	7831.9
1946	511.9	425.3	657.4	455.5	651.2	1392.5	569.2	125.6	345.5	605.1	507.2	417.2	6619.1
1947	565.1	425.9	1140.9	751.6	1324.0	1674.1	1350.2	388.2	334.5	583.6	548.2	465.0	9351.4
1948	459.5	455.7	725.2	550.0	860.2	2623.0	1060.5	290.2	154.0	421.6	456.0	262.5	8317.3
1949	300.7	431.5	852.7	555.7	815.5	1454.8	486.5	108.0	215.4	432.9	432.0	273.8	6056.2
1950	293.1	595.3	700.0	625.9	490.9	1650.6	1241.1	489.2	376.7	606.6	497.8	491.4	8061.5
1951	472.9	468.4	631.0	637.5	679.9	1292.4	1231.7	649.1	471.3	593.5	570.5	551.9	8049.8
1952	460.0	552.5	729.2	1311.1	1269.5	1755.0	658.9	294.9	235.9	365.8	583.2	332.5	8552.5
1953	399.5	575.6	415.7	290.7	389.1	1752.5	683.6	204.9	142.7	340.5	385.1	379.6	5770.5
1954	195.7	416.5	524.6	453.1	817.0	920.6	852.6	250.3	193.9	376.8	431.8	379.3	5616.0
1955	227.8	275.3	274.7	612.1	563.7	1160.6	551.7	44.0	67.9	371.6	359.7	367.1	4862.2
1956	341.4	293.2	662.7	527.8	982.3	2089.9	588.3	228.8	231.9	355.8	442.4	348.2	7092.6
1957	345.6	340.5	347.7	549.7	990.9	2597.4	1278.2	269.0	552.1	480.7	505.2	421.9	8686.0
1958	410.0	344.0	540.6	370.3	761.2	1291.1	474.7	73.8	132.6	361.9	381.2	305.4	5451.0
1959	323.4	332.1	1154.4	401.6	485.3	1710.7	774.0	103.4	170.9	467.1	393.5	441.2	6760.6
1960	240.2	328.4	740.1	406.3	371.9	1020.2	25.1	0.0	79.7	306.9	375.3	254.6	4149.1
1961	250.5	286.7	313.0	145.1	174.6	1075.7	0.0	0.0	292.4	555.4	519.6	519.7	3970.7
1962	320.0	339.5	335.1	524.0	576.7	2114.4	1557.2	382.2	557.2	538.8	474.9	421.0	8440.9
1963	343.4	673.5	608.4	415.4	1002.7	2398.9	764.1	152.5	322.1	410.2	456.6	528.9	7926.8
1964	428.0	437.2	422.6	465.4	857.0	2257.6	1596.6	345.3	351.4	407.1	459.8	545.4	8543.4
1965	506.2	495.4	566.8	1180.9	1085.5	2640.7	2318.5	638.3	540.2	683.6	452.5	445.1	11551.6
1966	431.4	419.2	605.1	355.9	546.7	893.9	207.6	12.9	102.2	564.6	413.3	430.5	4845.3
1967	359.0	341.6	402.9	465.5	758.3	2401.6	2448.2	465.3	570.6	580.7	541.7	485.5	9601.3
1968	671.7	549.1	653.8	454.5	553.7	2412.9	1194.0	514.5	601.0	643.4	611.1	485.3	9604.9
1969	550.5	507.0	1139.7	593.6	454.3	1245.1	1121.2	279.2	240.1	471.5	467.3	476.7	8147.6
1970	503.6	552.2	522.5	546.6	1132.1	2590.0	1291.3	305.3	333.9	518.2	506.2	502.7	8904.7
1971	599.5	1045.0	1105.9	898.7	1144.6	2597.3	1465.8	463.3	493.0	886.7	655.7	462.2	11795.8
1972	510.3	635.2	1536.4	635.5	961.8	2069.4	869.8	415.6	444.4	673.8	666.0	436.1	9852.2
1973	571.4	556.1	641.1	582.8	1157.2	1654.7	576.9	286.2	489.6	637.2	660.9	528.0	8552.1
1974	534.5	541.0	564.3	661.6	799.0	2451.6	1607.9	448.7	416.8	568.1	625.4	502.9	9747.0
1975	562.5	441.9	782.9	569.7	1459.0	2244.8	2652.0	669.4	405.8	6.9	16.4	11.9	9925.8
AVERAGE	407.1	455.1	694.4	562.4	807.8	1827.2	1029.1	290.8	306.6	492.5	466.4	384.0	7724.7
MEDIAN	407.1	419.2	652.7	524.0	815.5	1708.4	858.8	279.2	322.1	471.5	467.3	379.6	8049.8
80 PERCENTILE	295.1	328.0	413.7	370.5	535.7	1160.6	474.7	73.8	142.7	365.8	365.1	319.0	5451.0
60 PERCENTILE	305.1	340.5	584.3	455.5	758.3	1650.6	685.6	228.8	235.9	443.6	442.4	351.9	7092.6
40 PERCENTILE	426.0	455.7	595.2	550.0	872.7	2069.4	1194.0	305.3	351.4	542.7	497.8	424.4	8543.4
20 PERCENTILE	506.2	552.2	675.5	695.6	990.9	2412.9	1439.8	448.7	416.8	605.1	541.7	475.8	9601.3
MAXIMUM	671.7	1045.0	1536.4	1311.1	1324.0	3088.6	2448.2	649.1	715.7	886.7	666.0	528.0	11795.8
MINIMUM	167.1	252.9	274.7	145.1	174.6	893.9	0.0	0.0	43.2	306.9	301.2	254.6	3970.7

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECOMMEND AND DOE FROM BIGHORN

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	[illegible]	[illegible]	686.2	390.5	757.4	1055.5	327.2	66.1	56.5	324.6	349.0	306.0	4983.4
1940	162.[illegible]	[illegible]	282.7	304.9	575.4	1229.4	97.8	0.0	38.5	557.6	296.1	299.2	4061.5
1941	214.1	241.5	352.5	329.2	547.5	1047.2	252.5	217.2	711.2	601.2	535.7	470.7	5727.6
1942	455.7	491.6	371.4	520.0	895.8	1702.7	652.4	237.7	226.6	458.9	481.9	341.0	7536.4
1943	[illegible]	[illegible]	1155.[illegible]	404.0	[illegible]	2559.5	2652.0	575.4	377.3	436.7	462.7	419.3	11368.2
1944	[illegible]	545.5	1005.5	715.5	857.0	3083.0	1435.4	300.2	293.2	451.3	455.5	313.9	9705.0
1945	[illegible]	591.1	720.4	567.5	465.1	1648.2	1557.0	428.4	355.6	559.3	500.7	352.1	7768.3
1946	505.5	[illegible]	652.5	430.2	625.4	1385.5	562.8	117.2	339.1	600.0	502.1	412.1	6555.5
1947	[illegible]	421.5	1155.[illegible]	745.7	1514.2	1666.5	1545.6	561.6	330.1	578.5	543.1	459.9	9267.6
1948	[illegible]	[illegible]	721.1	544.9	654.4	2017.2	1054.1	263.9	149.6	416.5	450.9	257.4	8253.7
1949	[illegible]	[illegible]	[illegible]	[illegible]	507.7	1449.0	450.1	101.6	204.[illegible]	427.9	425.[illegible]	266.7	5992.6
1950	290.[illegible]	341.5	694.9	620.3	455.2	1644.9	1234.7	482.8	372.3	601.5	492.7	486.3	7997.9
1951	[illegible]	[illegible]	525.4	632.2	674.1	1235.7	1225.3	642.7	466.6	588.4	505.4	346.6	7986.2
1952	[illegible]	[illegible]	724.1	1303.0	1203.3	1747.2	652.5	288.5	229.5	360.7	578.1	327.4	8286.9
1953	[illegible]	[illegible]	415.[illegible]	[illegible]	535.5	1745.3	574.[illegible]	146.5	138.5	535.4	550.0	374.5	5706.6
1954	[illegible]	[illegible]	519.7	[illegible]	811.2	914.9	846.4	244.4	189.5	371.7	426.7	374.2	5552.4
1955	222.7	[illegible]	[illegible]	637.0	553.0	1160.6	525.4	37.6	63.5	366.5	354.6	362.0	4796.6
1956	335.5	[illegible]	657.5	522.7	475.6	2084.1	501.9	222.4	227.5	350.7	437.3	343.1	7029.0
1957	[illegible]	[illegible]	542.5	511.6	455.1	2541.7	1271.6	262.6	547.7	475.6	500.1	416.6	8624.4
1958	[illegible]	[illegible]	535.7	555.2	755.5	1285.4	406.3	67.4	128.2	556.6	376.1	300.3	5387.4
1959	325.5	[illegible]	1149.5	[illegible]	477.6	1705.0	757.6	97.0	160.5	462.0	363.4	436.1	6697.0
1960	255.1	324.9	735.7	401.2	365.1	1014.5	18.7	0.0	75.3	301.5	570.2	249.6	4091.6
1961	283.5	[illegible]	309.9	133.0	163.6	1070.0	0.0	0.0	286.0	550.3	514.5	314.6	3919.6
1962	314.9	[illegible]	550.	515.9	671.0	2105.7	1350.8	575.6	352.6	535.7	469.6	415.9	8377.3
1963	[illegible]	[illegible]	615.5	[illegible]	[illegible]	2595.2	757.7	145.1	317.7	405.1	451.5	323.6	7063.2
1964	422.4	[illegible]	417.5	405.5	[illegible]	2251.9	1590.2	538.9	347.0	402.0	434.7	340.3	8279.5
1965	[illegible]	[illegible]	561.7	1175.5	1077.8	2634.9	2511.4	631.9	535.6	678.5	447.4	440.0	11487.9
1966	425.5	414.8	560.	550.8	542.9	835.2	201.2	6.5	97.8	559.5	408.2	425.4	4761.5
1967	555.9	[illegible]	[illegible]	450.5	752.5	2395.9	2441.9	458.9	366.2	575.6	530.6	480.4	9537.6
1968	[illegible]	[illegible]	[illegible]	429.4	527.9	2407.2	1187.6	508.2	590.5	636.3	606.0	478.2	9541.3
1969	[illegible]	[illegible]	1154.7	565.5	949.0	1249.5	1114.6	272.3	235.7	466.4	462.2	471.6	8064.0
1970	[illegible]	547.8	517.4	341.5	1126.4	2384.2	1285.0	296.9	329.5	513.1	501.1	497.6	8641.0
1971	594.4	[illegible]	1100.5	593.6	1134.7	2541.5	1459.5	456.9	486.6	881.6	628.6	457.1	11732.2
1972	505.2	[illegible]	1551.4	657.4	456.0	2063.6	663.4	409.2	440.0	666.7	650.9	431.0	9788.6
1973	[illegible]	[illegible]	555.	[illegible]	1151.5	1645.9	570.5	279.3	445.1	632.1	635.6	522.9	8260.5
1974	[illegible]	[illegible]	574.2	[illegible]	723.2	2445.8	1601.5	442.3	412.4	505.0	620.3	497.6	9685.3
1975	557.5	[illegible]	777.9	604.7	1455.2	2239.0	2646.2	665.0	401.4	2.3	11.5	6.6	9860.7
AVERAGE	402.0	451.5	564.5	557.5	662.1	1821.5	1022.9	284.9	302.4	487.5	461.4	379.0	7661.6
MEDIAN	[illegible]	[illegible]	[illegible]	[illegible]	607.7	1702.7	852.4	272.6	317.7	466.4	462.2	374.5	7986.2
80 PERCENTILE	[illegible]	324.4	413.6	505.2	527.9	1160.6	468.3	67.4	138.3	360.7	366.0	313.9	5367.4
60 PERCENTILE	[illegible]	[illegible]	577.2	430.2	752.5	1644.9	674.2	222.4	229.5	436.7	437.3	346.6	7029.0
40 PERCENTILE	422.4	[illegible]	[illegible]	541.9	857.1	2063.6	1167.6	296.9	347.0	537.5	492.7	419.3	8279.6
20 PERCENTILE	[illegible]	547.5	571.4	555.5	983.1	2407.2	1435.4	442.3	412.4	600.0	550.6	470.7	9537.6
MAXIMUM	[illegible]	[illegible]	1551.4	1505.0	1516.2	3083.0	2441.9	642.7	711.2	881.6	660.9	522.9	11732.2
MINIMUM	[illegible]	[illegible]	[illegible]	133.0	163.4	835.2	0.0	0.0	56.5	301.6	296.1	249.6	3919.6

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECORDED AND BASELINE FROM YELLO

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	380.1	275.2	695.2	395.5	755.7	1064.2	555.6	72.5	65.0	329.7	554.1	311.1	5047.0
1940	157.1	264.0	287.9	510.0	579.2	1235.2	104.2	0.0	43.2	542.7	501.2	504.3	4138.9
1941	219.2	252.9	357.9	334.3	555.5	1052.9	258.9	223.6	715.7	806.5	540.6	475.8	5791.5
1942	460.5	496.0	875.5	525.9	699.5	1708.4	658.8	244.1	233.0	464.0	487.0	346.1	7600.1
1943	407.1	864.6	1158.2	989.1	898.5	2565.5	2258.4	581.8	581.7	443.8	475.8	424.4	11431.9
1944	415.7	599.7	1008.3	723.4	872.7	3086.8	1439.0	506.6	297.6	450.4	440.6	519.0	9766.6
1945	424.5	402.5	725.0	572.6	468.3	1655.9	1563.4	434.7	358.2	564.4	505.6	357.2	7831.9
1946	511.9	425.5	657.4	455.3	551.2	1592.5	569.2	123.6	545.5	605.1	507.2	417.2	6619.1
1947	565.1	425.9	1140.9	751.6	1324.0	1674.1	1350.2	388.2	334.5	583.6	540.2	465.0	9351.4
1948	459.5	455.7	728.2	550.0	659.2	2625.0	1060.5	290.2	154.0	421.8	456.0	262.5	8317.3
1949	300.7	331.5	652.7	555.7	815.5	1454.8	486.5	108.0	213.4	432.9	432.0	273.8	6056.2
1950	295.1	395.5	700.0	823.9	490.9	1650.6	1241.1	489.2	376.7	606.6	497.6	491.4	8061.5
1951	472.9	460.4	651.0	657.5	679.9	1232.4	1231.7	649.1	471.3	595.5	570.5	351.9	8049.8
1952	468.0	552.6	729.2	1311.1	1269.5	1755.0	650.9	294.9	233.9	365.8	383.2	332.5	8552.5
1953	399.5	375.8	413.7	236.7	589.1	1752.5	605.6	204.9	142.7	340.5	385.1	379.6	5770.5
1954	196.7	416.5	324.3	455.1	817.0	920.6	652.8	250.8	193.9	376.6	431.8	379.5	5616.0
1955	227.8	275.5	274.7	612.1	563.7	1166.6	531.7	44.0	67.9	371.6	359.7	367.1	4862.2
1956	341.4	295.2	662.7	527.8	952.5	2089.9	588.3	228.8	231.9	355.8	442.4	348.2	7092.6
1957	348.8	540.5	547.7	549.7	990.9	2597.4	1278.2	269.0	352.1	480.7	505.2	421.9	8688.0
1958	410.0	342.0	540.6	570.5	761.2	1291.1	474.7	73.8	132.6	361.9	381.2	305.4	5451.0
1959	326.4	332.1	1154.4	401.6	485.5	1710.7	774.0	105.4	170.9	467.1	393.5	441.2	6760.6
1960	240.2	328.6	740.1	406.5	371.9	1020.2	25.1	0.0	79.7	306.9	375.3	254.6	4149.1
1961	288.6	286.7	515.0	143.1	174.5	1075.7	0.0	0.0	292.4	555.4	519.6	319.7	3970.7
1962	320.0	339.5	535.1	524.0	876.7	2114.4	1357.2	382.2	557.2	538.8	474.9	421.0	8440.9
1963	395.4	673.5	603.4	415.4	1002.7	2398.9	764.1	152.5	322.1	410.2	456.6	328.9	7926.8
1964	426.0	447.2	422.5	465.4	637.0	2257.6	1596.6	345.3	351.4	407.1	439.8	345.4	8343.4
1965	506.2	495.4	566.6	1180.9	1085.6	2640.7	2318.3	638.3	540.2	683.6	452.5	445.1	11551.6
1966	431.4	419.2	665.1	555.9	548.7	693.9	207.6	12.9	102.2	364.6	413.3	430.5	4845.3
1967	339.0	341.8	402.9	465.6	758.5	2401.6	2448.2	465.3	370.6	580.7	541.7	485.5	9601.3
1968	671.7	649.1	655.8	434.5	553.7	2412.9	1194.0	514.5	601.0	643.4	611.1	483.3	9604.9
1969	550.5	507.0	1139.7	693.6	954.8	1246.1	1121.2	279.2	240.1	471.5	467.3	476.7	8147.6
1970	503.6	552.2	522.5	346.6	1132.1	2390.0	1291.3	305.3	335.9	518.2	506.2	502.7	8904.7
1971	599.5	1045.0	1105.9	898.7	1144.8	2597.3	1465.8	463.3	493.0	880.7	633.7	462.2	11795.8
1972	510.3	635.2	1535.4	655.5	961.6	2069.4	869.8	415.6	444.4	675.8	666.0	436.1	9852.2
1973	571.4	560.1	641.1	582.8	1157.2	1654.7	576.9	288.2	489.6	637.2	660.9	528.0	8552.1
1974	559.5	541.0	584.5	601.6	799.4	2451.6	1607.9	448.7	416.8	588.1	625.4	502.9	9747.0
1975	562.6	441.9	782.9	669.7	1459.0	2244.6	2052.6	569.4	405.0	6.9	16.4	11.9	9923.8
AVERAGE	407.1	456.1	694.4	562.4	607.8	1827.2	1029.1	290.8	306.8	492.5	466.4	384.0	7724.7
MEDIAN	407.1	419.2	652.7	524.0	615.5	1703.4	658.8	279.2	322.1	471.5	467.3	379.6	8049.8
80 PERCENTILE	295.1	328.5	413.7	370.5	555.7	1150.6	474.7	73.8	142.7	365.8	385.1	319.0	5451.0
60 PERCENTILE	365.1	340.5	564.3	455.5	758.5	1650.6	685.6	228.8	233.9	443.8	442.4	351.9	7092.6
40 PERCENTILE	426.0	455.7	695.2	550.0	872.7	2069.4	1194.0	305.3	351.4	542.7	497.6	424.4	8343.4
20 PERCENTILE	506.2	552.2	875.5	693.6	990.9	2412.9	1459.8	448.7	416.8	605.1	541.7	475.8	9601.3
MAXIMUM	671.7	1045.0	1535.4	1311.1	1524.0	3086.8	2448.2	649.1	715.7	880.7	666.0	528.0	11795.8
MINIMUM	157.1	252.9	274.7	143.1	174.5	693.9	0.0	0.0	43.2	306.9	501.2	254.6	3970.7

MRBC SECTION 13A ENERGY ASSESSMENT
2000 RECOMMEND AND DUE FROM YELLOWSTON

YELLOWSTONE RIVER AT SIDNEY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1939	383.1	275.9	888.2	390.5	755.0	1058.6	327.3	66.2	58.6	324.7	349.1	306.1	4984.4
1940	152.0	274.6	282.9	304.9	573.5	1229.5	97.9	0.0	38.8	537.7	296.2	299.5	4082.5
1941	214.2	240.5	352.4	329.2	547.7	1047.5	252.6	217.3	711.3	801.3	535.8	470.6	5728.6
1942	453.5	491.7	671.5	520.9	843.9	1702.8	652.5	237.8	228.6	459.0	482.0	341.1	7537.4
1943	402.1	553.5	1153.2	964.1	395.0	2559.6	2232.1	575.5	377.3	438.6	468.8	419.4	11364.2
1944	410.7	545.4	1003.3	715.4	657.1	3083.1	1433.5	300.3	293.2	451.4	455.6	314.0	9700.0
1945	419.3	540.2	721.0	367.6	465.2	1646.3	1357.1	428.5	353.8	559.4	500.8	352.2	7769.3
1946	506.9	421.0	852.4	430.2	625.5	1335.6	562.9	117.3	339.1	600.1	502.2	412.2	6556.5
1947	360.1	421.6	1133.9	746.8	1318.3	1668.4	1343.9	381.9	330.1	578.5	543.2	460.0	9288.8
1948	457.5	444.4	721.2	544.9	654.5	2617.3	1054.2	264.0	149.8	416.6	431.0	257.5	8254.7
1949	293.7	527.0	547.7	551.7	607.6	1449.1	480.2	101.7	209.0	427.9	427.0	268.8	5993.6
1950	290.0	391.9	695.0	620.9	485.3	1545.0	1234.8	482.9	372.3	601.6	492.6	486.4	7998.9
1951	457.9	464.1	626.0	632.3	674.2	1285.6	1225.4	642.8	466.9	588.5	565.5	346.9	7967.2
1952	455.0	540.3	724.1	1306.1	1263.8	1747.3	652.6	288.6	229.5	360.8	378.2	327.5	8289.9
1953	594.5	371.5	415.7	291.6	533.1	1746.9	674.3	196.6	136.3	335.5	380.1	374.6	5707.8
1954	141.7	414.2	319.2	445.0	611.3	915.0	846.5	244.5	169.6	371.6	420.8	374.3	5553.4
1955	222.5	271.0	259.7	607.1	550.1	1160.9	525.5	37.7	63.5	366.6	354.7	362.1	4799.6
1956	336.4	283.9	657.7	522.7	976.7	2084.2	562.0	222.5	227.5	350.7	437.4	343.2	7030.0
1957	343.5	342.2	542.7	544.7	985.2	2591.7	1271.9	262.7	347.7	475.7	500.2	416.9	8825.4
1958	405.0	343.7	535.8	365.2	755.5	1285.5	466.4	67.5	126.2	356.9	376.2	300.4	5388.4
1959	525.4	327.6	1149.4	395.6	477.7	1705.1	767.7	97.1	166.5	462.1	358.5	436.2	6698.0
1960	255.2	324.5	735.1	401.3	366.2	1014.6	18.8	0.0	75.3	301.9	370.3	249.6	4092.7
1961	283.5	282.3	510.0	138.0	165.9	1070.1	0.0	0.0	288.0	550.4	514.6	314.6	3920.6
1962	314.9	555.1	550.1	513.9	671.1	2108.6	1350.9	375.9	352.8	533.8	469.9	416.0	8378.3
1963	353.4	659.2	803.4	410.4	997.1	2393.3	757.6	148.2	317.7	405.2	451.6	323.9	7864.2
1964	423.0	442.9	417.6	460.4	831.3	2252.0	1390.3	339.0	347.0	402.1	434.8	340.4	8280.8
1965	501.2	491.1	561.6	1175.9	1077.9	2635.0	2312.0	632.0	535.8	678.6	447.5	440.1	11486.9
1966	425.4	414.9	660.1	350.9	543.0	688.3	201.3	6.6	97.8	359.6	408.3	425.5	4782.6
1967	334.9	337.5	597.9	460.6	752.7	2395.0	2442.0	459.0	366.2	575.7	536.7	480.5	9538.6
1968	555.7	644.6	650.7	429.5	528.0	2407.2	1187.7	508.3	598.6	636.4	608.1	478.3	9542.3
1969	545.5	502.7	1134.7	688.6	949.1	1240.4	1114.9	272.9	235.7	466.5	462.3	471.7	8085.0
1970	496.5	547.9	517.5	341.6	1126.5	2384.3	1285.1	299.0	329.5	513.2	501.2	497.7	8642.0
1971	594.5	1040.6	1100.6	695.7	1139.1	2591.6	1459.6	457.0	488.6	881.7	628.7	457.2	11733.2
1972	505.3	628.9	1531.4	630.5	956.1	2063.7	863.5	409.3	440.0	668.8	661.0	431.1	9789.6
1973	585.4	551.6	630.1	577.8	1151.5	1649.0	570.6	279.9	485.2	632.2	655.9	523.0	8289.5
1974	554.5	535.7	574.3	656.8	795.3	2445.9	1601.6	442.4	412.4	563.1	820.4	497.9	9684.3
1975	557.6	437.6	777.9	564.7	1453.3	2234.1	2646.3	663.1	401.4	2.4	11.4	6.8	9861.7
AVERAGE	402.1	451.7	564.4	557.4	602.1	1621.6	1023.0	285.0	302.4	487.5	461.4	379.0	7662.6
MEDIAN	402.1	414.9	547.7	513.9	807.3	1702.8	652.5	272.9	317.7	468.5	462.3	374.6	7987.2
80 PERCENTILE	290.0	324.5	415.7	365.2	523.0	1160.9	466.4	67.5	138.3	360.8	380.1	314.0	5388.4
60 PERCENTILE	360.1	391.9	579.5	430.2	752.7	1645.0	679.3	222.5	229.5	436.6	437.4	346.9	7030.0
40 PERCENTILE	423.0	444.4	683.2	544.9	867.1	2063.7	1187.7	299.0	347.0	537.7	492.8	419.4	8280.8
20 PERCENTILE	501.2	547.9	671.5	538.6	965.2	2407.2	1433.5	442.4	412.4	600.1	536.7	470.8	9538.6
MAXIMUM	666.7	1040.6	1531.4	1306.1	1318.3	3083.1	2442.0	642.8	711.3	881.7	661.0	523.0	11733.2
MINIMUM	152.0	245.6	259.7	135.0	168.4	886.3	0.0	0.0	38.8	301.9	296.2	249.6	3920.6